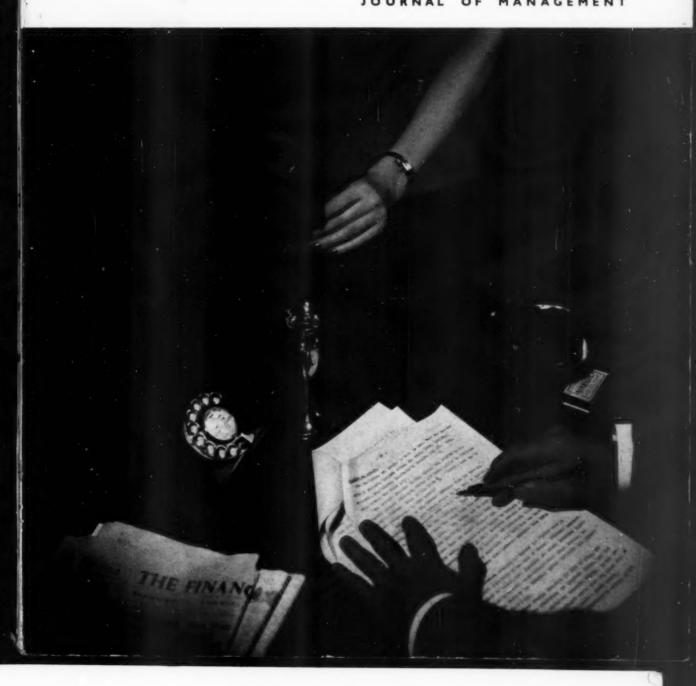
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 Health Bank Builds Morale 103
- Are You a Hero to Your Secretary? 72
 Training Technical Salesmen 85
 - Survey of New Equipment 119

BUSINESS





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BUSINESS

Economic Prospect

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COVER PICTURE

Lucky chap? Perhaps. But you too could be a hero to your secretary if you followed some elementary rules (see pages 72 - 77). Colour study specially photographed for BUSINESS by Helen Craig

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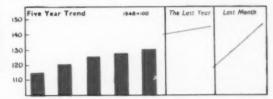


Special 'BUSINESS' Survey and Forecast

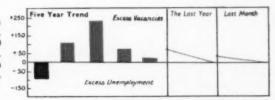
STATE OF THE NATION

Two uncertainties dominate the business outlook * First is the larger trade gap. Is a world trade recession coming? Risk of this has been allayed by prospect of rising U.S. defence spending Second uncertainty is wage-claim position. Mildly co-operative attitude by T.U.C. will not necessarily ensure individual union co-operation. Need for caution will be prevailing business sentiment until late Spring. @ Capital spending is slackening but consumer spending should remain buoyant * Labour market in rough balance.

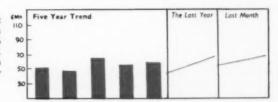
INDUSTRIAL PRODUCTION has levelled off and may not increase for the next few months. The provisional index for September was 143-144-3 or 4 points higher than a year earlier, but still 2 or 3 points below the peak level at the end of 1955. Present slackening is emphasized by Government fiscal policies. But after mid-1958, the expected upturn in U.S. industry should be echoed here.



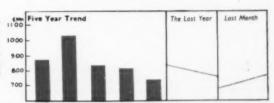
EMPLOYMENT POSITION is in close balance. In October there were 1,000 less vacancies than unemployed. This means 18,000 less vacancies than in September, 65,000 less than a year ago, and 187,000 less than two years ago. But beneath the apparent balance in the labour market is a slack demand for male and a brisk demand for female labour.



TRADE GAP has widened sharply to the highest deficit since January. The October excess of imports over exports was £70.3 million, a rise of £18 million on September, £23.6 million on a year ago and £57.0 million on three years ago. It is possible that stationary home production and foreign import restrictions have adversely affected exports sooner than expected.



GOLD AND DOLLAR RESERVES have shown a substantial increase. The October total was £748 million-£83 million above September, but £55 million below last year. The true dollar gain was about £52 million, or nearly a quarter the outflow of the previous two months. Recent Government measures and control of wage inflation should speed the recovery.

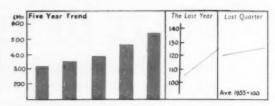


KEY TO THE CHARIS. Bar charts show the 'Five Year Trend', taking for each year the average monthly value during the most recent three months. Graph lines for 'The Last Year' compare the most recent month with the same month a year ago. Graph lines for 'Last Month' compare the most recent month with the previous month. READERS' ENQUIRIES. Spot enquiries by letter or telephone, involving no research, are answered free. More detailed enquiries will be charged for at cost, on the basis of professional staff time absorbed. This applies to both general management and economic enquiries.

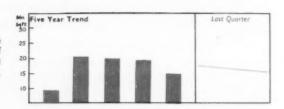
MAIN ECONOMIC INFLUENCES on the STATE OF THE NATION

1. Trends in CAPITAL SPENDING

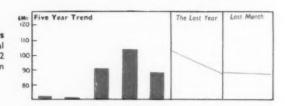
INDUSTRIAL INVESTMENT PLANS show that next year's capital spending is likely to be about 5 per cent down on 1957. Board of Trade index for second quarter of 1957 is 123—2 points above previous quarter and 10 points above same quarter a year earlier. Investment in plant and machinery has shown no slackening, but building work has fallen off markedly.



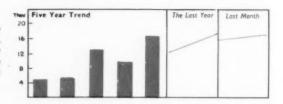
FACTORY BUILDING APPROVALS are at the lowest level since 1953. Revised figure for third quarter of 1957 is 17.9 million square feet—0.6 million below second quarter and 8.2 million above same quarter four years earlier. Higher Bank Rate will tend to hold down further spending.



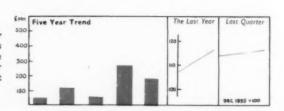
MACHINE TOOL ORDERS are below last year's level, partly due to recent Government restraints on capital spending. The August total of outstanding orders was £88.2 million, or a fall of £0.9 million on July and £16.4 million below August, 1956.



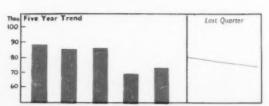
INDUSTRIAL HIRE PURCHASE has remained fairly buoyant, in spite of the tendency for a seasonal decline. The accompanying chart, based on contract figures for new cars and commercial vehicles, shows October sales to have been about 8 per cent above September and 31 per cent higher than a year earlier.



MATERIAL STOCKS are being reduced wherever possible. The Board of Trade index for manufacturing stocks at the end of the second quarter of this year was 116.2, a rise of 1.6 on the previous quarter and a rise of 9.2 on a year earlier. Non-manufacturing stocks fell by about 4 per cent during the second quarter.



HOME BUILDING STARTS have shown a seasonal decline, but are likely to remain at a fairly high level for some months. Permanent houses started in the third quarter of 1957 totalled 74,000, a rise of 4,000 on last year, but a fall of 16,000 on three years earlier. Number under construction at September was 256,800, a fall of 25,000 on a year earlier.



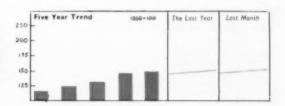
2. Trends in CONSUMER SPENDING

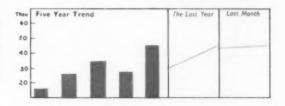
RETAIL SALES are ahead of last year's level and should remain so for Christmas. The September index was 151—5 points above August and 7 above September last year. Since the start of 1957 the sales margin over 1956 has slackened from 8 per cent to 5 per cent. Asian 'flu has caused some delay in Christmas deliveries.

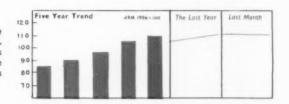
DOMESTIC HIRE PURCHASE is running well for the time of year. October sales were 1 per cent higher than September's figure and 46 per cent above last year's. The impact of higher initial deposits is markedly less than last year, especially in sales of domestic appliances. The accompanying chart, based on used car contract figures, reflects a recent decline.

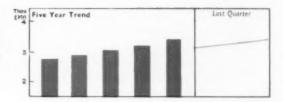
WAGE RATES have stayed level for five successive months, but slight increases are likely in the New Year. There will be a period of uncertainty while negotiations proceed and some hard bargains are struck. September wage index was 111—5 points higher than last year and 23 points more than four years ago.

PERSONAL EXPENDITURE is likely to level off. It has been rising only slowly. In the second quarter of 1957 the total was £3,453 million, a rise of only £261 million on the first quarter, and £142 million on a year ago.





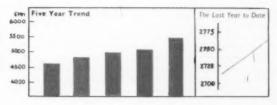


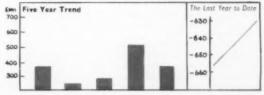


3. Trends in PUBLIC SPENDING

PAYMENTS FROM EXCHEQUERare, to date, about £50 million above the same period last year. Likely cuts in plans for electricity, atomic energy, railway development and possibly housing, should reduce Government spending by £300 to £350 million in the next two years.

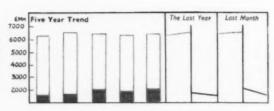
EXCHEQUER DEFICIT to date is about £23 million less than a year ago. As the employment position is no longer tight and business is restricted by recent Government fiscal measures—also there is the possibility of an 8-month or so period of world trade stagnation—the Budget year is unlikely to end up with any substantial surplus.



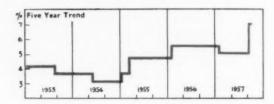


4. Trends in CREDIT POLICY

BANK DEPOSITS AND ADVANCES have moved in contrary directions. Total October deposits were £6,530 million, a rise of £154 million on a year earlier. October advances were £1,922 million, a fall of £32 million on September but a rise of £60 million on a year earlier.

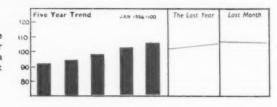


BANK RATE may be reduced slightly in the New Year. It could be cut to around 6 per cent. Movements of the rate in recent years are shown on the accompanying chart.

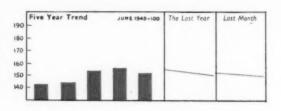


5. Trends in MARKET PRICES

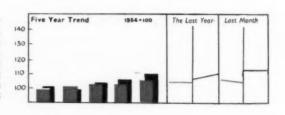
RETAIL PRICES are now relatively stable, and are likely to remain so during the winter. The September index was 106.1, a fall of 0.3 on August but a rise of 4.0 on a year earlier. There has been a 14½ per cent rise in the last four years.



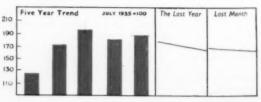
RAW MATERIAL PRICES continue to fall. Provisional October index was 148.8, or 2.6 below September and 6.6 below the same month last year. It was also 12.3 below the Suez peak, and the lowest since 1954. The downward trend is likely to continue until there is cheaper money here or in the U.S., a rise in U.S. output, or higher defence expenditure.



TERMS OF TRADE have continued to move in favour of the U.K. September import index was 104, or 1 point less than August, and 1 point lower than last year, but a rise of 3 points on four years ago. September export index was 112, the same as August, but 6 points up on a year ago and 11 points higher than four years ago. The short-term trading prospect is strong, but continued recession of world prices could soon reverse this. (Import prices shown in red, export in black.)



SHARE PRICES have recently been at a low level. At the time of going to press, Financial Times index of industrial ordinary shares is up to nearly 169, about 1 point lower than the average for October, exactly level with a year ago during the Suez crisis, but 21 points below the level two years ago. The present uncertainty may well continue until the wage-claim position is cleared up in the Spring.





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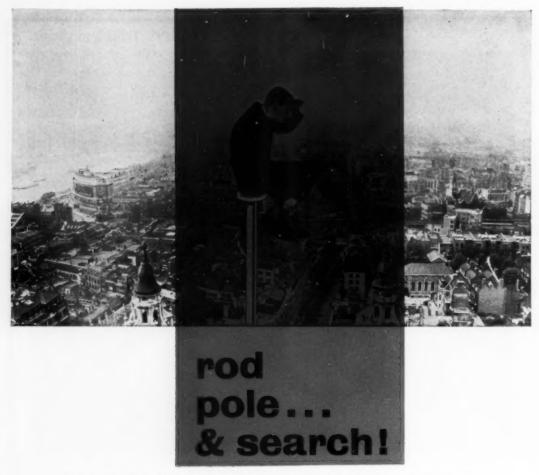
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HOME MARKET SURVEY

A Round Britain Survey: Regional Notes on Markets and Industrial Developments

SOUTH-WESTERN

ECISION of I.C.I. to establish a major centre of chemical industry on the Severn near Avonmouth at a cost over the next 20 years of £100million will add yet another major installation to those already established in the Region which are making a big contribution to its steady economic expansion. New factories and extensions over 5,000sq. ft. approved in manufacturing industry in the first half of this year totalled 71, with an area of 1.3million sq. ft. In 1956 the number of projects was 116, involving 3.5million sq. ft., and in 1955 the figures were 164 projects and 3.8million sq. ft.

On their new 1,000-acre site, I.C.I. plan to produce organic and inorganic chemicals, with oil as the main raw material. Good port facilities will be required, enabling tankers of up to 30,000tons capacity to discharge oil direct from the oilfields and refineries. The new works will be well placed to supply consumers in the Midlands and South both by road and rail, and also to ship abroad. Total operating force in the 70's is estimated at between 4,000 and 5,000, and the capital employed per man between £15,000 and £20,000.



Notable among constructional projects in the area are the two new C.E.A. atomic power stations at Berkeley on the Severn and at Hinkley Point, Bridgwater Bay. This latter station, which is to be built by the group comprising English Electric, Babcock and Wilcox and Taylor Woodrow, is due to be completed by the end of 1962 and will cost £60 million. At the new reactor research centre that is to be set up on a 700-acre site on Winfrith Heath, near Wareham, Dorset, the U.K. Atomic Energy Authority are to build five development reactors.

Engineering enterprises continue to report progress in many fields. Dowty Nucleonics, the youngest designing company in the Dowty Group, are currently working on a contract in connection with the Berkeley reactor and on new applications for other reactors. Discussing the problem of the provision of additional manufacturing facilities, Sir George Dowty, the chairman, recently suggested that this might well be met by the acquisition of existing capacity rather than by the building of new plant.

The Group have been making strenuous efforts to

diversify their activities. Whereas 10 years ago aviation products represented 94 per cent of their total sales, the comparable figure today is only 40 per cent. This trend is expected to continue since the Group's largest activity now is the provision of mining plant, with aircraft in second place, followed by railway and nuclear equipment. Dowty Hydraulic Units have developed a testing site for railway wagons which is believed to be the only one of its kind with full electronic recording and measuring equipment.

Fielding and Platt Ltd., of Worcester, are extending their interest in the production of special-purpose equipment associated with the industrial applications of atomic energy, and orders in this field have included heavy hydraulic equipment. In connection with the manufacture of presses and their ancillaries and to provide design data, the company are operating a new pump test bed. Incorporating a number of novel features, this enables a full range of pumps up to 600 h.p. to be subjected to stringent performance tests, under working conditions.

The brake division of Westinghouse Brake and Signal Co. is busily engaged on home and export orders. It has transferred to the Kingswood factory of Douglas (Kingswood) Ltd., the design, engineering, manufacture



The vertical line at 100 represents the national average level of retail trade for the latest month (September). Against this average the performance of each region may be measured



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and sale of the automotive brake for commercial road vehicles, and the pneumatic control equipment for marine and industrial applications; and the company plan to move the manufacture of further Westinghouse products to this plant.

Aldridge and Ranken Ltd., of Bath, have been reorganizing their production in order to develop further their new "Spryte" high-capacity portable lifting equipment. E.-V. Ltd., formerly Sapphire Bearings, have acquired a further factory at St. Ives, Cornwall.

Patent rights to the Imperial Smelting Corporation's new zinc smelting process, which has already been used to produce 100,000lb. of zinc at the firm's Avonmouth plant, have been granted in 20 countries.

Several firms are carrying out plants to extend their interests overseas. With a view to stepping up their Australian gas water heater business, Parnall (Yate) Ltd. are expanding the scope of their activities there, and the erection of a new factory is projected. Newman, Hender and Co., of Woodchester, have recently concluded an agreement with an Australian concern covering the manufacture of their "Vee-Reg" valves, and further specialities may be included in this arrangement later on. The company's Canadian distribution firm are developing encouragingly. A warehouse has been built in Calgary to carry the stocks necessary to service the petroleum and natural gas concerns operating in Western Canada.



John Heathcoat and Co., of Tiverton, report the near completion of the Melbourne factory that will house their weaving plant and the conclusion of an arrangement with Yarra Falls Ltd. to operate as a joint venture a finishing plant on their premises. The company are to carry out a policy of further expansion, chiefly in the field of elastic fabrics and the processing of various yarns, and capital commitments amounting to £200,000 have recently been made. To increase their sales in the U.S., the Worcester Royal Porcelain Co. have leased new showrooms in East 26th Street, New York, engaged additional salesmen and launched an extensive advertising campaign.

Progress towards centralizing their production has been made by Permali Ltd. who are now occupying a new factory at Gloucester with a covered area of some 170,000sq. ft. Work connected with the development of laminates based on the use of glass fibre is to be carried on there. A new division has been created within the company for the fabrication of polytetrafluorethylene and other fluorocarbons, and manufacture has now commenced. To meet the growing demand for their

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230 OFFICES IN PRINCIPAL WORLD MARKETS

Molochite refractory—sales of which are expected this year to be 100 per cent higher than in 1956—English China Clays Ltd. are erecting additional plant. Assisted by a firm of consultants, a management reorganization of their subsidiary companies is in progress.

Bristol Industries Ltd. have spent £115,000 on the installation of additional deep-freeze refrigeration plant, on other new plant and vehicles, and on warehousing and garage premises. The firm's cold storage and warehousing interests are to be further developed. Wm. Butler and Co. (Bristol) Ltd., the tar distillers, are intensifying the work of their research and development laboratory.

Active conditions prevail at the port of Bristol where in 1956 exports rose by some 30 per cent. U.K. importers of raw materials are now receiving copies of the Port of Bristol Authority's latest publication, "The A.B.C. of Raw Materials", which records the facilities and services it offers. Work is now in progress on Esso Petroleum's new £1.5million storage terminal at Holesmouth, near Bristol. On a 30-acre site, it will be connected with the existing ocean terminal at Avonmouth by pipeline and will provide increased storage capacity for fuel oil for industry, as well as for other products.

Charles Hill and Sons, of Bristol, are completing a £1million contract for the supply of two ocean-going tugs for Poland.

* * *

A mineral survey in Cornwall covering a distance of 4,300 line-miles has been carried out by a Hunting Geophysics' D.C.3 aircraft. The contract for the search was given by the D.S.I.R. on behalf of the Geological Survey of Great Britain, in association with the U.K. Atomic Energy Authority.

Bristol's new airport at Lulsgate is sited 600ft. up on the west side of the main Bristol-Bridgwater-Taunton road and covers 335 acres. The main runway is 1,300yds. long and this may be extended to 2,000yds. in the future.

A programme of further motels, including one at Bath, is currently being planned by Mr. Graham Lyon, who introduced motels to Britain. He is already operating three, one being the Devon on the Exeter by-pass.

Lewis's new £3million department store has been opened in Bristol.

Since the work study school of the Engineering and Allied Employers' West of England Association was opened in 1953, around 1,000 students from all branches of industry have been assisted. Training facilities will be increased in 1958 when the department moves to larger premises at Clifton. Courses planned for next year comprise work study, supervisory management and specialist training.

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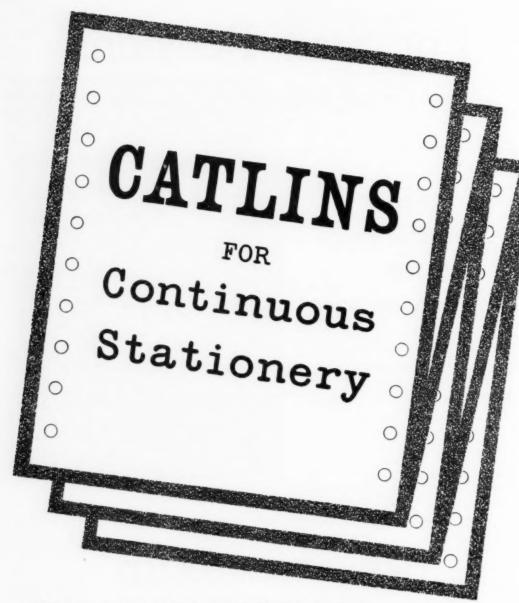
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A Round-the-World Survey: Country by Country

SOUTH AFRICA

TEXT to Canada, South Africa is the most swiftly developing area in the Commonwealth. Already the Union's manufacturing industries are contributing more to the national income than gold mining, agriculture, forestry and fishing combined, although in these sectors, too, considerable progress has been made in the past few years. Mineral output this year should rise by some £14million to £318million, and exports are expected to reach a new record total, surpassing last year's figure of £413million (gold excluded). With only 10 per cent of the land area suitable for cultivation, agricultural output has been rising steadily, and South African farmers are now providing some £100million worth annually of industrial raw materials in addition to exporting agricultural products to a similar value and supplying the home market.

The U.K. is still the Union's best customer; and last year British exports to South Africa totalled £155million. The rate of increase in the gross national product of 2-2.6 per cent looks like continuing for some time; and allowing for a population growth of 50 per cent over the next 20 years, it is calculated that there will be an average rise in income of about 30 per cent by 1975.

All this spells opportunities for further U.K. sales in a market where by next year only 8 per cent of all imports will continue to fall under quota headings. According to Dr. A. J. R. Van Rhijn, Minister of Economic Affairs, import control is to be entirely abolished some time in 1958, to herald a free trade period for the first time for 16 years.



One point that is causing concern is the slowing down in the inflow of capital. Since the war, Britain has invested over £500million in the Union—the largest single U.K. stake overseas. But a continuance of investment demands—as Mr. Harry Oppenheimer, a deputy chairman of Anglo American Corporation, told a Chamber of Commerce meeting in Cape Town—that overseas investors should believe that "this is a safe and sane country, and that economic interests will not be sacrificed to ideological feelings."

That there are many openings for capital is certain. A five-man U.S. trade mission, for instance, which made a six-week tour of investigation in the Union this summer concluded that "excellent opportunities"

existed for further American investment. To assist the promotion of industrial development, the Industrial Finance Corporation has been formed with a capital of £5million provided by 32 subscribers. Applications are now being investigated by the Industrial Development Corporation, who will also act as managers for the new body.

In the same month (October) that a de Havilland Comet 3 jet airliner set up a new record of 12 hrs. 58 min. for a flight from London to Johannesburg, the centenary was celebrated of the Royal Mail Service from Britain to South Africa. In 1857, the 530-ton steamer Dane took 44 days to complete the journey; today the time has been cut to 13 days 14 hours, and the service is maintained by a fleet of eight vessels that would cost about £60million to replace. Two new ships are on order, the larger of which, the 40,000 ton Windsor Castle, will be capable of cutting the journey to $10\frac{1}{2}$ days if necessary.



The country's rapid economic growth since the war has been particularly marked in industries requiring large railway freight capacity: iron and steel, building construction, base metals and wool and grain. Bulk freight, which accounts for much the greater part of traffic on the South African railways, has, in fact, increased by more than half since 1945; in 1955-56 it totalled some 75million tons. A series of expansion programmes has been carried out by the Railways and Harbours Administration over the past 10 years, and the World Bank has just made its fourth loan for this work, bringing their total loans to date up to \$100million.

The most important project is a further increase in line and yard capacity. Some 160 miles of line are to be double-tracked, 140 miles regraded, 450 miles electrified and five marshalling yards enlarged or constructed: in addition, about 80 miles of new suburban or branch lines will be built. Further electrification will call for the purchase of 200 electric locomotives, 155 motor coaches and 375 trailers. Diesel traction is to be introduced and 135 diesel locomotives bought. Also, the Administration are to purchase 70 steam locomotives, 1,100 coaches and 19,000 freight cars.

Extension of the transport and communications network will help considerably to step up the Union's ex-



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ECONOMIC PROSPECT

ports of coal, manganese, iron ore, chrome and anthracite. Current improvements to the Natal rail system and to the facilities at Durban harbour will enable the 70,000 million tons of coal reserves in the Transvaal to be exploited.

A projected harbour at Sordwana Bay, plus a 300-mile rail link to the Transvaal, would provide a further coal and chrome outlet. Shipments of chrome ore will rise from their present volume of 600,000 tons when expansion of the Lourenco Marques harbour is completed in 1959-60, and manganese and iron ore exports will be increased when the new facilities at Port Elizabeth are in operation.

The country's indicated reserves of uranium oxide are the highest in the world. At present there are 17 uranium-extraction plants treating the residues from the gold-reduction plants of 27 mining companies. A five-mile stretch of Natal's south coast, near Umzimbazi, is to be mined for three important heavy minerals: ilmenite, zircon and rutile.

On strategic grounds, the Government have decided that an electronics industry should be established in the Union. Over the next five years orders for electronic equipment will total millions of pounds, and several British concerns are contemplating the establishment of branches in the country. The first associate company established by Aiton and Co., of Derby, outside the U.K. has just gone into production at Port Elizabeth. The new plant specializes in the fabrication of steel piping, and about 60 per cent of its machinery has been made locally.

At their Modderfontein factory, African Explosives and Chemical Industries are to erect a £10million nitrogen plant. Most of the detailed design and erection will be done by the Power Gas Corporation, of Stockton, and their local associate concern, Ashmore, Benson and Pease, of Johannesburg; and British Oxygen Linde Ltd., of London, have been awarded the contract for the oxygen plant. A number of British companies are sharing contracts worth £4.1million for Johannesburg's new Kelvin B power station

One of the country's largest projects is the £48million oil-from-coal plant at Sasolburg in the Orange Free State. When in full production, this will have an annual output of 55million gallons of petrol and 6million gallons of diesel oil, together with by-products that will serve as the foundation of a chemical industry. Some of these by-products will be used by the new £3.5million fertilizer factory now being erected at Sasolburg by Fisons.

Steel output is being expanded by Iscor—the South African Iron and Steel Corporation—at a cost of £30-million. Capacity of the two plants at Pretoria and Vanderbijl Park is to be increased to 1.8million tons per annum, and a third works is projected.

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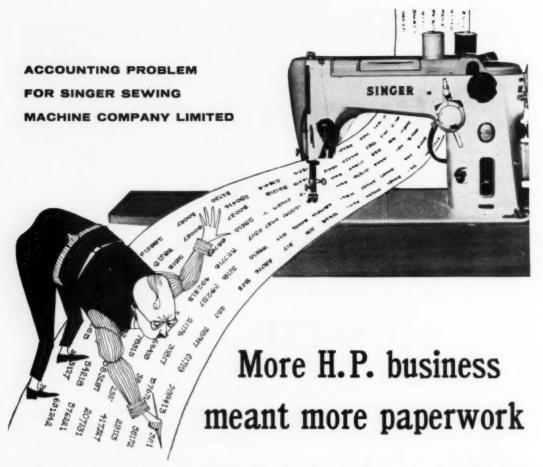
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MARCH OF BUSINESS

5-Year Peace Plan?

Considerable interest has been aroused by the 'end wage battles' plan put forward by Lord Chandos, president of the Institute of Directors, at the Institute's annual conference last month. It consisted of:

1—Longer notice of the termination of employment, based on the employee's length of service.

2—A five-year 'peace' during which the employers would give an annual wage increase of (say) 2½ per cent to all employees who had served a reference period—and the unions would withhold all wage claims.

Lord Chandos (who emphasized that he was speaking personally) suggested that the annual increase should be based on the wage for a 44-hour working week. To gear it to some sort of productivity index was impracticable; but he was sure that, with a greater degree of security, the British worker would "give increased productivity to more than correspond with the increase in wages."

How would inflation affect the plan? On this score, Lord Chandos was a little vague. He said that the Government, the employers and the trade unions would have to see that the advances represented a real increase in living standards.

Guest of honour at the 3,000-delegate conference was the Prime Minister. This would seem to be an effective answer to the critics—inside and outside the Institute—who lan.basted last year's choice of Frank Cousins.

New figures issued by the Life Offices' Association and Associated Scottish Life Offices reveal that at the end of 1956 some 2,700,000 employees were covered by company-sponsor-

ed pension and life assurance schemes underwritten by life offices.

"Self-employed" pension contracts of the type made possible by the Finance Act, 1956, had risen to 22,000 (involving a premium income of £3,300,000) by the end of the year. This was "encouraging," since it related only to the opening phase of the business.

£1.000 Million Bill

A T.U.C. resolution pledged "full support to affiliated unions in their efforts to secure a shorter working week with no loss of pay for members." The British Employers' Confederation have now estimated that the adoption of a 40-hour week on those terms would raise the national wages bill by at least £1,000 million.

Under present conditions, overtime—at an overtime rate based on the new hourly rate—would average about eight hours per employee per week. Total effect of the increases would be to raise manufacturing costs by about 2s. 6d. in the £.

The idea that the working week could be reduced to 40 hours and

overtime abolished is described by B.E.C. as "completely unrealistic."



Two one-week residential courses in sales management are to be held next year at Sundridge Park Management Centre, the first from March 2 to 7, the second from June 29 to July 4. The syllabus will apply equally to large and small firms, and to capital and consumer goods. Inclusive residential fee is 50 gns.

* 'Sputnik' Danger

THE American congressman who expressed his nation's chagrin at being beaten into outer space by the Russians, and suggested that the verb 'to sputnik' should in future be used to signify a surprise victory over an opponent, was far more down-to-earth than would at first appear. Many businessmen are likely to find themselves sputniked during the next

This was made quite clear by Dr. Alexander King, deputy director of the European Productivity Agency,

decade, if they do not keep right on

Next Month

Research into Industry

Can investigations by sociologists and psychologists help to solve management problems?

their toes.

Activity Sampling

Three case-histories in the use of this 'short cut' form of work study.

when he addressed the recent Bournemouth conference of the British Institute of Management. He quoted an American study which showed that of all the money spent by American industry on research since Independence in 1776 up to the end of 1954, half was spent after Christmas 1948

It would be hard to find a more graphic way of illustrating the accelerating pace of research expenditure. And of course it has grown a lot since 1954. But when allowance is made for the fact that it usually takes from five to ten years to turn the laboratory results of research into commercial products and services, it becomes clear that in the next few years a lot of firms which have not been doing research on an adequate scale, are likely to be taken by surprise by competitors who have already made important discoveries.

Again quoting the United States, 80 per cent of the expected industrial growth during the next six years will be in the form of products not yet sold.

A 'bad' accent may be the only thing which keeps a man out of a toplevel job, according to Frank Jones of Birmingham, author and lecturer on spoken English. At a recent Rotary club meeting in Birmingham he declared: "There is many a man on the shop floor who would be in the managing director's office if he could speak decent English. That is no exaggeration."

Feminine Touch

LIZABETH Barling—a speaker at one of four sessions for the wives of delegates to the B.I.M. national conference at Bournemouth-suggested a new approach to the problems which are solemnly considered by seven men on pages 66 to 71 of this issue of Business. She believed that women executives could play an important part in settling and avoiding industrial disputes because they placed are Boots Pure Drug Co.

less emphasis on logic, more on feelings.

Management would not remove misunderstandings or grievances simply because their cause was "righteous." Said Miss Barling, who is general editor for the John Lewis Partnership: "The more right you are and the more effectively you make clear your rightness, the more the other side will cling to their wrongness.

"Maybe you would do better to be a little right, a little less effective. . . . What you are dealing with is the selfesteem and group loyalties of the other side that happen for the moment to be bound up with a wrong-headed view. The natural approach of the man is to forget the self-esteem-except his own-and to attack the wrong-headed view as if it were the thing that mattered. . . .

"Women are better avoiders of antagonism. They know that the logic of the dispute is trifling compared to the feelings of the disput-

The Office Management Association have announced the inauguration of an annual award for the best paper. report or article describing an office organization or re-organization which leads to an improvement of the business concerned. The judges will take into account not only savings in office costs but also the contribution to the smooth running of the whole organization.

The award—made possible through the generosity of J. Lyons and Cowill consist of a silver medal and £40 cash. Entries for the current year close on March 31, 1958.

Automatic Reading

AST month's 'Electronics in the Office' progress report mentioned that the first production model of the Solartron ERA (electronic reading automaton) was to be used by a chain of retail shops. It can now be stated that the company concerned its own people.

The machine will be installed at Boots' Nottingham head office. Its job will be to read printed sales records produced on rolls by cash registers at the company's branches. These figures will be converted into electrical impulses and fed automatically into a special-purpose electronic accumulator, which will print out the totals required for accounting and statistical purposes. The system -first of its kind in the world-will be married with the Emidec dataprocessing equipment which is to be delivered to Boots in about 12 months' time.

ERA's reading speed is between 200 and 300 characters a second. Every week it will handle rolls from hundreds of cash registers.

A limited number of reprints of the 'Electronics in the Office' progress report-which summarises new developments in commercial data-processing-are still available, price 9d. each, from the Editor.

How Much Service?

THE Harrogate festival of "Films in the Service of Industry"-first of its kind in the world-produced plenty of statistical evidence that films are trying to serve industry. But to what extent are they succeeding?

Many delegates came away from the festival with the impression that much more emphasis was placed on film production than on practical ways of using film for specific purposes inside industry.

Out of 131 British entries, 51 were concerned with public relations, prestige or sales promotion, 34 with different aspects of training and technical information. Only a dozen dealt with such things as human relations and the health and safety of employees.

It seems that industry regards film mainly as a means of 'getting at' the consumer and general public, rarely as a means of communicating with

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prestige films shown at Harrogate were of a high standard. But there was a dearth of training films designed for specific types of group discussion or specific courses of instruction.

At the lecture and discussion sessions, the production and distribution of industrial films were examined in pretty general terms. Very little was said about the problems of producing one film; of making sure that it was used effectively; of comparing its value with that of alternative methods of presenting the same information.

These deficiencies may be remedied if and when another festival is held. The potential value of the film's service to industry is probably enormous; but there is still a lot to be found out and a long way to go.



The visitors' gallery at the Stock Exchange was opened four years ago. Since then, more than 255,000 people—including many organized parties—have passed through it. To help future visitors, the Stock Exchange has now produced an attractive leaflet which answers questions from the basic "What is the Stock Exchange?" and "How important is investment?" to "Who are those men with blue buttons in their lapels?" and "Why is that rattle sounding?"



What They Want

O management really understand the things which keep employees happy? A pilot retail staff attitude survey sponsored by *Stores and Shops* throws some new light on this old question.

More than 1,000 employees from 15 stores in the London area took part in it. Given a list of 12 preselected factors, they decided that the following were the most important to them in their work:

- 1—Having reasonable chances of promotion.
- 2—Having good working conditions and amenities.

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NEW PRESIDENT of the Office Appliance and Business Equipment Trades Association is Major C. V. Wattenbach, deputy managing director of Dictograph Telephones Ltd. He is a council member of the Incorporated Sales Managers' Association and was chairman of the British Direct Mail Advertising Association in 1953.





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PLYWOOD ROOF of this new mail-order warehouse in Leeds covers 45,000 sq. ft. and is estimated to have been almost £30,000 cheaper than traditional roofing. The technique, using a material called Trofdek, was described in 'Timber Makes a Fighting Comeback', BUSINESS, October 1957.

- Having pleasant working companions.
- 4—Having the chance of improving their knowledge and skill.
- 5—Working under an efficient organization.

Some of the managements of participating stores were asked to place the same 12 factors in the order in which *they* considered them to be of importance to selling staff. Their top five were:

- Receiving pay increases according to merit.
- 2-Having an interesting job.
- 3—Having good working conditions and amenities.
- 4—Having pleasant working companions.
- 5—Having a fair and considerate supervisor.

One significant difference between the two lists is that management seem to attach less importance than their employees to the attractions of working under an efficient organization.

Letters

Sir,

As this association has special groups for qualified O. and M. men, it naturally welcomes the setting up of the Organization and Methods Training Council to which you referred in your September issue.

I should point out, however, that it is not only facilities for O. and M. training which are so meagre at present, but facilities in the whole field of office management. This association has a diploma in office management and, in addition, sponsors certificates in office administration, office methods and office supervision.

Whereas many organizations are quite willing to encourage their factory staff to improve their knowledge of the job, the attitude towards a proper appreciation of the methods by which office work is performed is in many cases almost negligible.

J. L. COUSINS Secretary

Office Management Association London S.W.1

BEOBLE

PRODUCTS

PLACES 2

AT THE TOP of his business is 70-year-old Leslie Gamage, who became chairman of the General Electric Co. Ltd. last month after 38 years with the firm. Exports have always been a major interest of his. For 15 years he has been president of the Institute of Export.





AVAILABLE for business purposes is the National Film Theatre's new 500-seat auditorium. With every projection facility, small stage, lounges, bars and soothing decor, it is expected to attract considerable conference bookings. There is also a 25-seat 'private view' cinema room.



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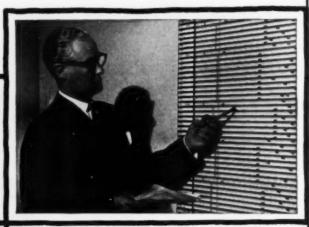
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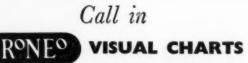
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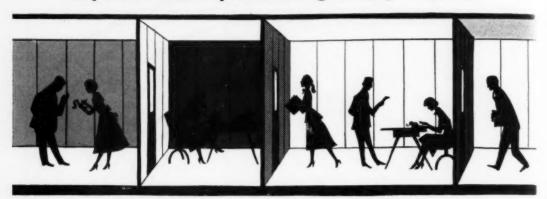
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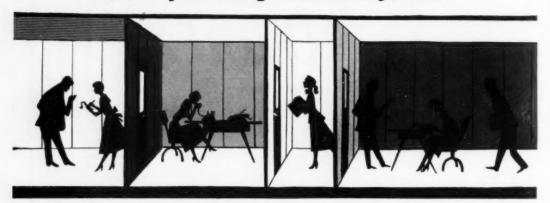
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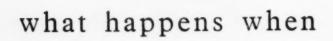
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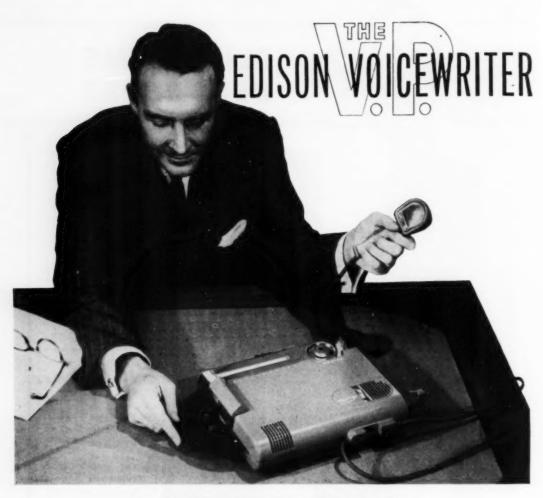
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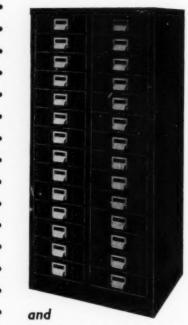
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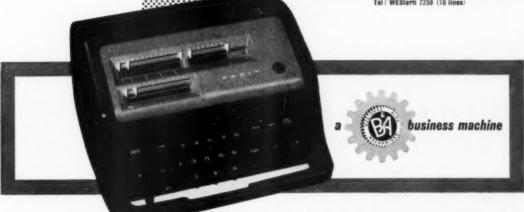
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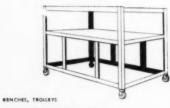
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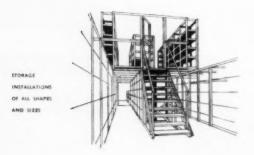


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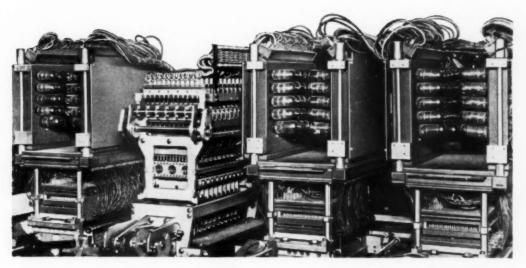
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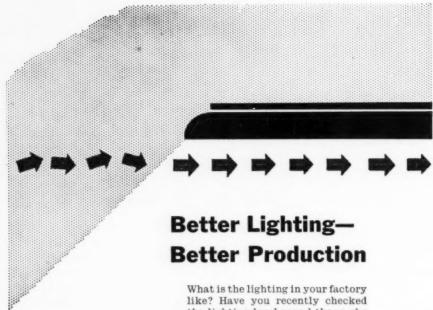


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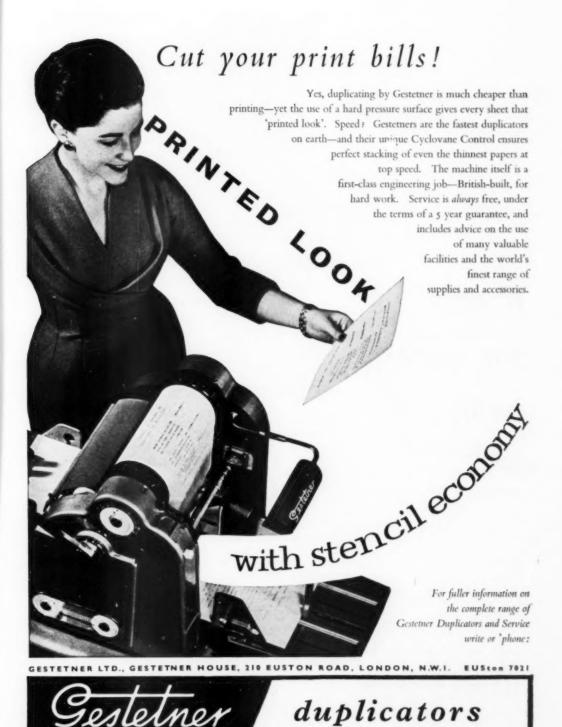
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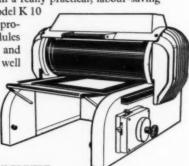
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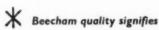
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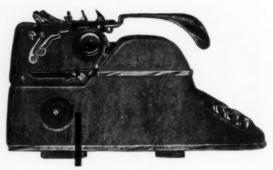
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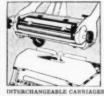
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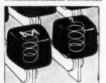
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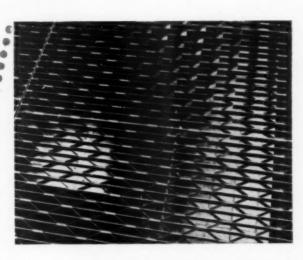
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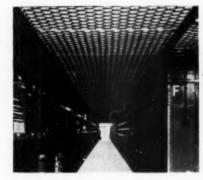
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Could There Be Another General Strike?

Unionism was never stronger - but some of the fire has gone

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back on. And their leaders know it. middle and unorganized classes. Twelve years of prosperity and full are exceptions.

ment and the employers, "the indi-near-staff jobs. vidual worker could be an unwilling one time.

again. Today it is possible to have a considerable conflict at the top bet- *Cresset Press, 21s.

the possibility that there may be a then a settlement with no repercus-

Another point to be borne in mind comes from a recently published There is some evidence to support book, "The General Strike" by the view that the trade unions would Julian Symons*. This most readable be loth to force a showdown. They account of the events of 1926 brings have no reserve of bitterness and ill- out clearly the formidable latent feeling amongst their members to fall power and resourcefulness of the

The trade union movement, in employment have helped to create a spite of its strength, is only a minority generally good tone of industrial re- movement. Affiliated to the T.U.C. lations—the few exceptions receive are unions with some 81 million memall the more publicity because they bers, and there are about another million members of unaffiliated In the report of a Business lunch unions. But the total work force is discussion on page 66 of this issue, 24 million. And every year sees a George Woodcock, assistant general relative fall in the number of 'tradisecretary of the T.U.C., makes the tional workers' in manual jobs of point that today, when there is a con- one kind or another, with an inflict between a big trade union move- crease in the number of staff and

Perhaps unionism was never so participant; that is to say he may strong as it is today. But at its mohave no particular conflict with his ment of triumph, it is in greatest danemployer as such. These days a na- ger of toppling from its lofty perch. tional dispute doesn't automatically. Its collective aims and ideals have lead to a local dispute—as it did at never been so remote from the dayto-day ideas and attitudes of a very 'Take the 1926 General Strike. large section of the 'working' popu-When that was settled there was an lation. The trade unions are in that enormous number of local disputes, see-saw position of a television perand it was some time before local in- sonality. The very characteristics dustrial organizations settled down that strongly attract some viewers,

strongly repel others. In the age of sputniks it is to be hoped that the union leaders take heed of Newton's Third Law: To every action there is an equal and opposite reaction.

Enquiring Minds

THE value of giving financial information to employees was discussed by one of the syndicates at a two-day convention held recently by the Charterhouse group of finance companies. Opinions were sharply

One syndicate member said that when his firm produced a 'popular' edition of their balance sheet, primarily for employee stockholders, between 20 and 30 per cent of the nonstockholding employees applied for copies. Another member said that much interest was aroused by publishing the price of shares in which pension funds were invested.

These were exceptions. The general feeling was that only 1-5 per cent of the people who got financial information were at all interested in it. The rest didn't understand big figures, and didn't want to.

But several members of the syndicate stressed that the trouble and expense were justified if only a tiny percentage of 'enquiring minds' were uncovered and developed - they might well be good candidates for promotion.

Keys to Better Industrial Relations

A BUSINESS Panel Discusses Three Questions

- What are the underlying causes of industrial conflicts—particularly those which appear at local, rather than national, level?
- What can individual employers do to eradicate some of the causes of conflict?
- Can the small firm make a more forceful contribution to the improvement of labour relations?

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QUESTION 1-What are the underlying causes of industrial conflicts-particularly those which appear at local, rather than national, level?

be misunderstanding - misunderstanding on both sides of aims and desires.

WOODCOCK: I wouldn't go as far as that. There are two kinds of industrial conflict. One is conflict between a big trade union movementnot necessarily big trade unions—and the employers. It may concern hours of work and similar questions, but it is principally concerned with wages.

In conflicts of this kind, the individual worker could be an unwilling participant; that is to say, he may have no particular conflict with his employer as such. But these days a national dispute doesn't automatically lead to a local dispute—as it did at one time. Take the 1926 General Strike. When that was settled at the top there was an enormous number of local disputes, and it was some time before local industrial organizations settled down again.

Today it is possible to have a considerable conflict at the top between the unions and the employers, then a settlement with no repercussions at the bottom, none at all.

At the local level I should have thought that generally the conflict that arises is more in the nature of human conflict—the kind of thing that happens whether you are concerned with industry or not, that happens in a club, where people join more voluntarily than they do in industry.

BRIDGES: You are making a very good case for what I said. When we get down to the smaller picture the underlying cause of trouble is misunderstanding of people's points of

different interests and different atti- do, "What the hell has it got to do

BRIDGES: If you could sum up the tudes. Local misunderstandings are answer in one word surely it would mainly concerned with conditions of one kind or another. My own experience is limited to cotton, and the misunderstandings I have in mind involved such things as the supply of material or its quality. Maybe we in the weaving shed received weft which to us seemed badly spun, or maybe we didn't receive any weft at all.

> CHAIRMAN: Was your dissatisfaction with what you received in the shed due to its adverse effect on your earnings? Or combined with that was there also the irritation and perhaps discomfort of working unsatisfactory material?

> WOODCOCK: We were a piecework

CHAIRMAN: So mainly it was a question of wages?

WOODCOCK: Yes, but not a question of wage standards. We on the shop floor were not allowed to quarrel with the price per piece, because that was settled by national agreement. Mainly it was a question of being able to produce our quota. In those days we were expected to produce so many pieces per loom per week, yet there were occasions when the material supply was poor. The cause of conflict which got everybody's back up was a thing which people are getting fed-up of hearing but which is still essentially true-we had no recognized means of complaining.

If you had the brass nerve you could stop the manager in the alleyway and say, "This is no damn good. Here we are at half past seven in the morning, queuing up at the weft room for an hour before we can start work." If he told you why, probably a good deal of your irritation went. WOODCOCK: It is a question of But if he said, as he was inclined to

The Panel

CHAIRMAN SIR WILFRED NEDEN, C.B., C.B.E.

Chief Industrial Commissioner Ministry of Labour and National Service

DR. ELLIOTT JAQUES

Industrial Psychologist and author of "The Changing Culture of the Factory" "Measurement of Responsibility"

GEORGE WOODCOCK, C.B.E.

Assistant General Secretary Trade Union Congress

DAVID COX

Chief Work Study Engineer Richard Thomas and Baldwins'-Redbourn

J. M. BRIDGES

Company Personnel Manager T. Wall and Sons (Ice Cream) Ltd.

MICHAEL IVENS

Manager Communication Division Esso Petroleum Co. Ltd.

REV. D. W. JAMES

Industrial Chaplain South West London with you?" then you had to accept it in those days.

It wasn't so much misunderstanding, it was an entirely different point of view. The management thought we were impertinent in asking those questions. They understood perfectly well what we were grumbling about.

BRIDGES: They misunderstood your rights.

IVENS: Employees expect a number of things from the employers and the trade unions. Not only justice in terms of wages, they also expect certain conditions—for example, that their work should be more interesting or that they should be allowed to 'participate' more. Sometimes they feel they are not getting what they expect.

This is a social problem. Employees are very often right to expect things they don't get, but sometimes, because of social factors, the decline in religion and the fact that people are less interested in politics or trade unions, they reveal needs that industry cannot necessarily deal with.

Cox: It's damnable heresy to suggest (as some people do) that payment-by-results schemes cause trouble by drawing attention to management deficiencies of the sort which Mr. Woodcock was talking about. Isn't that one of their real advantages? Mr. Woodcock's trouble was that in those days the management did not accept criticism. Nowadays, with any luck, the employee has a work study department which would tell management, from a reasonably impartial point, that they were doing a bad job.

CHAIRMAN: I think that the root cause is what Mr. Woodcock dealt with at the beginning of his remarks. We must accept that there are two sides in industry, in spite of the fact that statements to that effect are often deprecated as encouraging antagonism between employer and worker. Without question, there are certain interests common to both worker and employer — prosperity, full employment, and so on. But surely there will always be conflict about the way the fruits of prosperity are shared.

SIR WILFRED NEDEN
We must accept that there are two sides in industry



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We should get away from the tradition of 'works manager' organization in the large firm

JAQUES: Nationally negotiated wage structures establish what are basically minimum levels of payment. But local firms are still left to sort out the question of what different categories of labour should receive.

This fundamental question of differential wage structures is not just an issue between management and workers, since it concerns the payment for different classes of work within the organization as a whole. It has big implications in firms where certain sections begin to get the feeling that they are being badly done by. At present a lot of disaffection exists among general office workers in industry, because on the whole their rates of pay are lower than those of engineering workers. The sorting out of what various kinds of work are worth over and above nationally negotiated minima is more basic, I think, than questions of misunder-

WOODCOCK; You must not assume that engineering is the only industry carried on in this country. What you

say isn't true of many other industries, where trade union rates are not the minimum rates but the rates actually paid, whether they are for timework or piecework.

Outside engineering, the bulk of the shop disputes are concerned much more with the problems of dealing with human beings. Both at the top, where you are dealing with the distribution of the cake, and at the bottom, when you are dealing with the fact that one man is working and another is managing, you will always have disputes. There isn't any solution.

REV. James: Doesn't it boil down to the fact that we can almost take the word "industrial" out of the question? The roots of conflicts and disputes are pretty much the same everywhere—inability to understand one another, inability to co-operate everybody trying to grab a larger share of the cake.

BRIDGES: When I referred to misunderstanding I didn't mean the misunderstanding of isolated statements.

68

BUSINESS

DAVID COX

Today, with luck, the employee has a work study department to tell management when they are doing a bad job





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GEORGE WOODCOCK, C.B.E.

You get damn all leadership from the small firms-they are as scared as a cat

goals of the two sides.

There is in fact a common aim which could get the two sides of the business together. It is not profits but profitability.

I can't imagine for a moment any worker in my company identifying me with profits. I don't even know

I meant misunderstanding about the the profits our company made last year. What I am interested in is in profitability, in keeping the company going. So is the worker. Isn't that a common aim?

> This is where our authority as management springs from. A person will accept my instructions provided that they appear to be aimed at the general profitability of the company.

QUESTION 2-What can individual employers do to eradicate some of the causes of conflict?

IVENS: I am quite sure that some conflicts could be avoided by better communication and better consultation. This applies especially to industrial firms which are going through a period of change. A lot of conflict arises because change is put over badly to employees. Companies often do not take their employees with them when they change their methods of production or introduce redund-

employer to avoid running into this sort of trouble if he recognizes that he has got to consult his employees and the trade unions and give them a chance to participate.

REV. JAMES: Only yesterday, the production manager of a laundry in Croydon which I visit every week told me that very often the most effective way of introducing a new method is to talk it over with the ancy. I think it is possible for the workers-so that in the end they

think they have suggested it them-

IVENS: That can become extremely false. There is a difference between allowing people to take part in discussions and manoeuvring them into making your own decisions.

CHAIRMAN: I don't suppose there is any dispute whatever about what Mr. Ivens and the padre have said. Obviously it is commonsense to explain a change to everybody concerned. But there is more to it than that.

IVENS: Yes-participating in the changes. There is a big difference between informing employees of a change and genuine consultation.

BRIDGES: The trouble is that we in management don't honestly understand the techniques we are using to manage the business. I don't believe one company in ten has a clear idea of the individual jobs done by individual people.

What can be done by individual employers is to try and seek some of the truth within their own businesses. They must examine the real hierarchies of management-not just the things that are put in little squares on an organization chart, but the real things that make one man's job more important or less important than another's. When these things are found, the companies have got to instruct or teach their management to use them properly.

JAQUES: There must be knowledge by management of the work they are trying to do, a detailed insight of the jobs they are setting up to do at, and the provision of effective organization. This means setting up real jobs in order to get real work done.

Such knowledge and understanding remain theoretical unless they are reflected in the financial payment structure. There is no use calling job A a bigger job than job B and then paying them at the same rate. Those are, in effect, two inconsistent statements. I would define justice in pay as simply the payment of equivalent rates for equivalent levels of responsibility.

Another fundamental issue is the

DECEMBER, 1957

themselves so that they really know the capacity of individual employees and really lay on methods of dealing with the progress of each individual in the company.

WOODCOCK: I want to make what is in a sense a warning about what Dr. Jaques said on rewarding people in relation to their responsibility. It may be necessary, but in this country it is dangerous. It leads to trouble, because just as management may be at fault in not having been brought up in a democratic atmosphere, similarly the workers have been brought up in an atmosphere of solidarity. Many of our people still live in villages where jealousy can be caused by differen- these questions in the light of what

squashed it because we said it would iron them out.

capacity of organizations to run be fatal to the prosecution of the war if Mrs. A. went into a shop and drew bigger rations than Mrs. B., simply because her husband was deemed to be doing more difficult or more arduous work. We said nobody could justify that kind of qualitative judgment.

> There may be less progress, but there is a good deal more peace, with the traditions we have, in something nearer uniformity. It may be necessary for an undertaking to separate people on the bases of some higher responsibility-but don't think it will lead to industrial peace. It won't. It will lead you to a good deal of jealousy and industrial conflict.

CHAIRMAN: I'm prone to look at I myself have experienced at a na-Let me give you an example. At tional level. I will only say that the beginning of the war, the T.U.C. I have had to deal with some notoriwere faced with a suggestion from the ous national disputes caused by government that there should be a parties seeking differentials and scheme of differential rationing. We others caused by parties seeking to

What they have accomplished is reorganization on the basis of 'operational units' or 'product units.' The general principle is that each of these units is in charge of a highish-level manager who, in turn, is in charge of a group of section managers, each of whom is in command of between 10 and 50 hourly-rated operators. It was stipulated that no unit should have more than 400 employees—at present, in fact, they range from 50 to 350.

The principle of the reorganization was to break up the specialist departments and to get into these small units, under the unit manager, the production engineers and progresschasers and now even the organization and personnel specialists.

The rebuilding of some shops has taken place, and these people have their cluster of offices right on the shop floor. One very noticeable effect is that much of this stuff about 'upstairs' has just disappeared.

I followed through the effects for three-and-a-half years, and the work has been going on for five or six years now. That experience has led me to believe that it is possible within the very large organization to get the equivalent of the advantages of smallfirm leadership.

Cox: I agree very strongly. The real snag with big firms, to my mind, is not the span of direct control, but specialization. In a small firm the works manager, or somebody of his status, also acts as personnel manager and everything else you can think of, whereas in the big organization the man on the shop floor doesn't quite know what all these people coming from the top are doing.

WOODCOCK: I have very little faith in small firms. When it comes to leadership, in my experience you have got damn all from the small firmall you have got has been from the big firm. The small man is as scared

BRIDGES: I'm glad you say that. Big firms find themselves severely handicapped in joint industrial councils because what they would like to do has to be tempered to the small firm who can hardly afford to keep running.

CHAIRMAN: We seem, at the last

QUESTION 3-Can the small firm make a more forceful contribution to the improvement of industrial relations?

and it has taught me a very strong lesson. This may sound rather like heresy, but one of them was actually going broke, yet I have never seen industrial relations so good!

The reason illustrates the advantage of the small firm in comparison to the large one. It is very difficult for a large company to project its image to its employees; very often the image it tries to project is Utopian, the perfect industrial concern which nobody believes in and nobody in fact wants.

Now, in the small firm I mentioned the director was a genius but he had too many good ideas and was investing his money in too many things. Everybody knew him, everybody liked him. Everyone was working furiously to avoid calamity, which they held off very much longer than they would have done normally.

firm is that it has-or should have-

IVENS: I have been with small firms opportunities to experiment. The trouble is that almost all industrial relations research is carried out by big firms.

> JAQUES: I've had experience with small firms employing 50 or 100 people, and I've had experience with a larger firm employing 3,000 and reorganizing itself along particular lines. The thing that strikes me with smaller firms is that everyone knows each other. There is a particular kind of morale based on what I have come to think of as mutual recogni-You don't get the outsider feeling which you do get in the very large firms.

This sort of thing became manifest at Glacier Metals, the larger firm whose reorganization I mentioned. Production engineers and progresschasers felt that when they went down to the shop floor they were always treated as outsiders. To get Another advantage of the small things done they had to use the iron fist in the velvet glove.

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REV. D. W. JAMES

The roots of conflict are pretty well the same everywhere-inability to understand one another

MICHAEL IVENS

Because of social factors, employees reveal needs that industry cannot possibly deal with





J. M. BRIDGES

The trouble is that management don't honestly understand the techniques they are using

in fact do it.

WOODCOCK: If it is a question of I'm afraid you have to go to the big industrial relations.

very direct conflict, or disagreement course you can do a great deal by anyway. For myself, I see great splitting up your administrative units. force in all the points Dr. Jaques You come back to what Mr. Bridges made. Certainly there are possibili- said earlier about the administrative ties in the small firm. But what the officer in a small unit knowing exact-

firms. I'm not scared of bigness. There is a tendency these days for people to howl if anything gets big, but in my experience the big organization produces the big man and the big man can't afford to have small

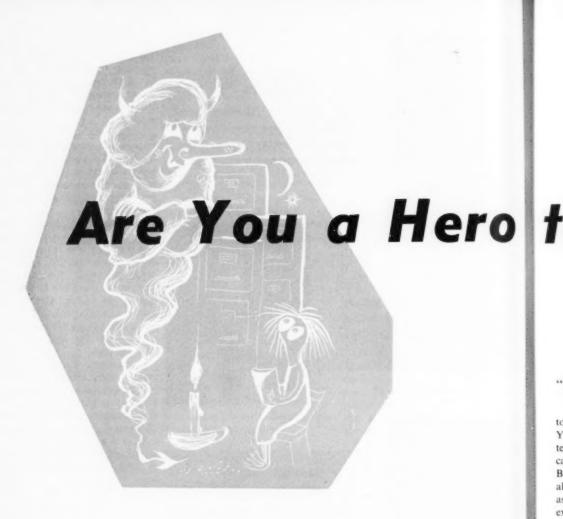
JAQUES: I wouldn't want to generalize about the small firm versus the big firm. The point I was trying to make is that there is, I think, a fairly well-known phenomenon which can be obtained and is obtained in certain small firms.

Mr. Woodcock's point is that if the managing director of a smaller firm is as big a man as the managing director of the large firm, his firm will not remain small. My point, however, is that there is a certain tradition in big British industrial firms with the 'works manager' type of organization to get this quality of socalled 'small firm leadership' from away up there.

One manager of a factory of 2,000 people prides himself on knowing everybody's name. A managing director of a 17,000 - employee firm claims to have an 'open door' policy. It's phoney. It's not real at that size.

What I am suggesting is that we should get away from the tradition of 'works manager' organization in large firms, which is to establish works or plant managers at about the 1,500-2,000 employee level, with all the specialists grouped around them. What really happens is that everybody is continually 'by-passing.' There are all kinds of lines of command for engineers, accountants, cost people, progress-chasers, and so on. They are all poking their noses in down below.

CHAIRMAN: What is really amounts to is this. The small firm has the moment, to have come to a point of administering a given policy, then of opportunity of exercising this type of effective leadership which is probably absent in the big firms not organized on small-unit lines, and there is a great deal to be said for organizing big firms on those lines so that they last two speakers have said is that ly not only just what he is doing there can in fact have the advantages of although small firms may have op- but how he fits in and what is the the small firm. But I agree with Mr. portunities to cultivate more indi-policy and what is the position of the Woodcock that in practice, at any vidual and closer contact, they don't whole. But if one talks about leader- rate, the small firm is by no means ship in the sense of new policies, then the most successful in this matter of END



You may think you are—
but here is how you look
from the other side
of the desk

to Your Secretary?

by Stephen Rose

You rub your hands, clear your throat, and settle down to a vigorous session of dictation. Your fine, modulated voice makes telling points in crisp English. Occasional humorous asides keep Miss Brown chortling with delight. Yes, all in all, you're on top of the job, as fine an executive as ever drew expenses . . . aren't you?

Of course you are. Anyway, who's going to contradict you? Certainly not that meek Miss Brown, busy with her pothooks and squiggles. . . .

"Take a letter, Miss Brown." (Oh dear, he's off again. If he quotes what the actress said to the bishop just once again I shall scream. What was that? I can't ask him to repeat it—he'll grab the opportunity to unload some more of his heavy-handed sarcasm. Yes, Mr. Smith. No, Mr. Smith. I'm sorry, Mr. Smith, it was my fault.... One of these days I shall hit him with the telephone directory.)

It could happen anywhere. As you read this, do you feel two venomous eyes piercing you like gimlets from the other side of the partition? Or are you really a hero to your secretary?

"God forbid!" you exclaim. Let her know who's boss. You hired her, and you give the orders. If she doesn't like it, she can lump it.

But how often does it work out that way in practice? A BUSINESS survey of boss-secretary relationships suggests that it is the hero who gets more mileage from his secretary.

How does one get to be a hero? Take a look at the secretary's ideal boss for a moment:

Her hero is no lady-killer. The successful boss brings out maternal, not amorous instincts in his secretary. She wants to look after him, not have to look after herself. She enjoys business camaraderie at top level, likes to feel she is working with an executive, and not just for him.

Her hero is a strong character. He may be temperamental, irascible, demanding, but he gets things done. He acknowledges good work with generosity. He does not suffer fools gladly, may himself be eccentric, but hides a heart of gold under a brusque exterior.

Her hero is considerate. He probably won't remember her birthday; flowers, perfume, chocolates are the

exception rather than the rule. But he will have an instinctive understanding of the secretary's work, and will avoid the usual pitfalls (see overleaf).

her hero insists on quality. There's no fun in doing one's best for a person who is quite happy with the second-best. But the ideal boss is not niggly. He creates a working atmosphere in which the second-rate is simply unthinkable.

Her hero is straightforward. It's no good playing a part. This soon wears thin and annoys a secretary more than somewhat. She is happier seeing her boss as he is, than seeing him try to be something he is not.

How do you measure up to that heroic yardstick? If you're still in the running, try the questionnaire on the next page. It's one that every secretary mentally checks off for her boss. If you come out of it with flying colours you deserve an exceptional secretary. If you don't, it may account for some of the gremins in your office—the letters that get lost, the appointments that are missed, the callers who are kept waiting, the messages that don't make home base. No prizes are offered:





Do you think before you dictate?

- (a) Do you work through the mail and think out replies in outline before calling your secretary in?
- (b) Have you ever counted the number of 'ums' and 'ers' in five minutes of your dictation? If so, were you horrified?



How clearly do you speak?

- (a) Do you address the wastepaper basket? Talk out of the window? Speak with teeth clenched on pipe?
- (b) Have you ever listened to a recording of yourself?
- (c) Do you think aloud? Does your secretary have to follow all your rambling thoughts before a sentence is dictated?



Do you try to be considerate?

- (a) Do you group dictation into convenient sessions?
- (b) Do you encourage her to farm out routine copy-typing and similar chores to lower-paid typists?
- (c) Do you realize how the mail-room hates late mail? Are you really too busy to sign letters in good time?



How interesting is your secretary's work?

- (a) Do you believe in keeping her briefed on the work of your department?
- (b) Do you ever ask her advice on non-secretarial matters?
- (c) Do you notice times she is bored, then give her a special job to keep her happy?

Have You Got the Right Secretary?

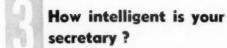
If you are no hero, it may be that long as you put up with less than the ure in a heap of applicants. you have not got the right heroine. For instance, does Miss Brown arrive late, strew powder all over the typewriter, make a hash of the appointments book, display uncouth telephone manners, present letters for signing that look like Chinese, and dash off five minutes early to meet her boy-friend?

If she does, why blame an unen-

best you are sabotaging your own efficiency.

To get a good secretary, you must either train up a promising shorthand typist, or hire a competent girl and pay the market price. But few executives have the time or the patience to do much training, and the second method suffers from the shortage of top-class secretaries plus the

Many bosses resort to the old-boy network when seeking top-level staff. In club-rooms and bars you can hear secretaries being traded around like unfurnished flats. If Smith's secretary says she wants to leave for a particular reason, why let her take pot-luck with the agencies? Smith reckons that if she is leaving anyway, he might as well make the best lightened personnel department? As difficulty of finding the genuine treas- of a bad job by getting Jones to hire



- (a) Do you answer all routine correspondence yourself? Have you ever tried letting your secretary have a go?
- (b) Do you always dictate names, addresses, dates and references in full, and then pass over the background material anyway?
- (c) Do you dictate all punctuation, specifying paragraphs and lay-out?

Do you expect her to work your hours?

- (a) An executive is paid to work all hours: is your secretary?
- (b) Do you offer her the price of an evening meal and the taxi fare home when she has stayed on rather late?
- (c) Do you pull a long face when she wants to go early for special dates?

How much do you expect from your secretary?

- (a) Do you expect her to be a mind-reader?
- (b) Do you forget to keep her in the picture, and yell at her when she cannot cope?
- (c) Do you keep her informed of your movements, or do you like to practise the disappearing trick?

How good is your secretary's equipment?

- (a) Did you consult her about that new typewriter you've iust bought?
- (b) Did you turn a deaf ear to her plea for more drawer space and a bigger knee-hole in her desk?
- (c) Do you encourage her to keep in touch with office methods?

that when the next contract comes up. . . .

If the old-boy network fails, there letters. are always advertisements in highclass newspapers. But here many How to Pick a Winner executives turn their backs on promi-

her. This will put Jones under a one case recently, a highly-qualified cants to routine shorthand and typing

The executive who claims he can particular, are guilty of this. In ployers. Some firms subject appli- amination, run by the London

useful obligation, and might mean secretary from Durham had to resort tests-but what good does that do? to a London accommodation address It doesn't prove your prospective before she even got a reply to her secretary can write good English, compose a business letter, handle telephone enquiries or meet unusual situations with resource and tact.

If you want to be sure of getting a sing material by never even having pick a winner every time at an inter- top-level private secretary, you should a look at applicants from other parts view is a fool. But often there is no look for someone who has passed of the country. London firms, in other selection medium open to em- the Private Secretary's Diploma Ex-

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Chamber of Commerce. This examination is, in effect, the comprehensive selection test which every firm would like to apply to top-level recruiting, but for which they have neither time nor money.

One look at the examination papers shows that the standard is high-very high. In addition to routine testing in shorthand and typing, candidates are examined for intelligence, personality, and flexibility. They must know how to behave at parties, how to run a meeting, how to take minutes. They are expected to show an intelligent interest in current affairs. They must be able to write good letters. Above all, they must know what the boss is entitled to expect (and this includes many things the average boss has long since stopped trying to get done).

The final ordeal of this examination takes the form of an interview by a panel of prominent businessmen. They waste no time in idle chit-chat. They pose the candidate a problem, and watch her squirm. Typical question: 'Your employer has just been run over in a street accident. What do you do now? The panel shrewdly judges such points as personability, attitude, manner and bearing. Its judgment is usually sound.

Only about 100 secretaries have managed to pass this examination in the two years it has been going, but many more would have the incentive to train for it if prospective employers decided to recognize the diploma as a professional qualification, and rewarded holders with a special rate of pay.

Having found your treasure, of course, you've still got to win her loyalty and devotion. Fighting off unscrupulous competition is no easy matter these days. Some executives even deny having a secretary at all, just to play safe.

But, as attentive readers will have realized, secrecy is no safeguard. Only the man who is a hero to his secretary stands any chance of defending her against marauders. Incidentally, he will also have fewer ulcers, work shorter hours, maintain a sweeter temper and lead a rosier life than his unpopular counterpart.

How to drive your se

Six easy lessons — guaranteed to work

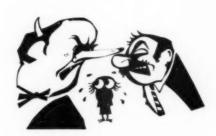


WATCH THE CLOCK—Don't dictate everything at once—dole it out a little at a time, say every hour or so. Keep her on the run. If she complains, tell her you're probably helping her to avoid Stenographer's Spread. Every so often, give her a little dictation at around five to five, just to show who's boss.



BE YOURSELF—If you feel grouchy, why hide it? Give her a large piece of your mind regularly, just on general principles. A good way to get rid of pentup emotions is to revise all those nice finished letters on your desk. Ink in all the corrections you like—it's good for your blood pressure. What it does to her's we won't say, but then who cares?

Ir secretary __



JUST KEEP TALKING—Make a few longwinded phone calls while she's sitting there, and if you feel the urge to chew the fat with the guy at the next desk between letters, go right ahead. No premeditation, either. Let her sweat it out while you hunt for the letter you need, decide what to say, etc.



SHOW HER WHO'S BOSS—Just because you've already said something one way doesn't mean you can't change it. Make full use of inserts, crossouts, deletions. When her notes look as if they've been through the wars, ask her to read them back, just for laughs.



DON'T COME DOWN TO EARTH— Never spell out unusual names; every once in a while throw in a foreign phrase or two without blinking an eyelash; when she asks questions, beat around the bush and make it quite clear that you don't encourage that sort of nonsense. When you're in the mood to play a really funny joke, dictate a long report and don't tell her you want an extra carbon until it's all typed.



BE HARD-HEARTED—even though for you it may be almost impossible. Never compliment her work. Be sure to mention each and every mistake she makes, both to her and to anyone else you can get to listen. Discourage such time-wasting activities as asking her how she feels, listening to her problems (after all, you've got your own), etc. This may be easier for you if you develop a perpetual sneer on your face.

Text by Theresa Paoletti. Reprinted from 'The Inside Line' by kina permission of the National Tuberculosis Association, U.S.A Illustrations specially drawn for BUSINESS by David.

Modified Fork Trucks Solved their Handling Problems a jib and hook attachment of

by Keith Underwood

THE normal fork-lift truck is designed to deal with a standard palletized load. This, in its ideal form, is a cube with smooth sides, the pallet providing convenient entry for the forks.

With suitable accessories, trucks can handle loads of many other kinds—bales, bricks, barrels, loose materials, etc. But no manufacturer has yet designed a truck to pick up and carry about safely such a large and complicated load as a punched card accounting machine.

This was the problem facing Powers-Samas Accounting Machines Ltd. at their Croydon works, where machines have to be moved considerable distances in the course of assembly, testing and despatch. Two machines, in particular, raised big difficulties: a punched card tabulator weighing half a ton and consisting of up to 30,000 parts, and a summary card punch weighing between 3 and 4 cwt. The difficulties lay not only in their bulk but in the fact that protective casing is put on only at the very last stage of manufacture. Until then,

the assemblies are merely mounted on open metal frames, affording no protection.

Under the old system, each frame was assembled on a flat trolley, and was wheeled around on this. Since most of the firm's machinery is of upright design, at least two men were needed for trundling the trolley slowly and carefully from shop to shop.

Obviously the job could be done faster by fork truck. But how could it be done safely? The firm's answer was to buy the truck which came nearest to their particular specifications, and to modify it themselves.

They chose a battery-electric model because

- —they didn't want noise and fumes inside the workshops.
- —judder free movement would protect the delicate mechanisms.

How truck was modified

The handling department's first idea was to sling a harness round the machine frames, and to attach it to

a jib and hook attachment on the truck. This involved hinging the forks so that they could fold inwards, and fitting manually-operated side arms and spindles. In fact, it proved cumbersome and unsatisfactory.

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After further experiments (see picture story opposite) a simple but effective attachment was designed to fit over each fork of the truck. Two 'fingers' on this gadget hook into the assembly frame as the forks are raised, and provide a secure grip. Slipping the attachments on or off the forks takes hardly any time at all, so trucks handling accounting machines can still be used for normal pallet duty in the stores.

The only problem posed by this method was how to get one attachment to deal with all the different types of frame used in the factory. One interim solution had been to make the 'finger' parts adjustable. But this left too much responsibility with the truck operator.

To make their handling system foolproof, the company have decided to modify the actual assembly frames. Such a step will naturally take some time to complete. But already many frames have been modified to conform to the attachment, resulting in a marked improvement in handling efficiency.

The logic of this development is now being taken to its ultimate conclusion. Experiments are being carried out in conjunction with a firm of truck manufacturers to see whether future replacement trucks can incorporate the support fingers in the design of their forks. The fingers need not widen the forks, and should not interfere with normal handling duties, as does the present attachment.

The thoroughness with which the company have tackled this handling problem springs from an enlightened management approach. Responsibility for the co-ordination of materials handling throughout the works has been given to one department, instead of letting each department work out its own system.

On the other hand, the management have avoided the error of false economy—of trying to make one type of truck do too many different jobs. All the jobs suitable for handling by truck were classified, and it was seen that three different types would be required to do the work efficiently.

Type 1 is the fork lift truck described in this article. There are two of these at the Croydon works.

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Type 2 is a truck designed for transporting dies. This type has a solid platform which can be adjusted to heights ranging from 6in. to 3ft. 10in. It enables heavy dies to be slid from a storage rack straight on to the platform and (with height adjustment) off on to the table of a press.

Type 3 is meant for the movement of miscellaneous goods, and consists of another home-built conversion. Two power pallet trucks have been converted into 'travelling storage bins' by mounting a rack with two shelves on the forks. Although they can lift up to 3,000lb., they are only 53½in. long, and can successfully weave their way between machines in the production shops, bringing in materials and removing finished parts.

The principles applied by this firm to the handling of materials and assemblies have resulted in a smooth-running, logical set-up which is saving them time and effort on a considerable scale.

END

Four Stages in a Handling Project



First attempt at handling tabulator assemblies consisted of this harness which hooks under the frame, is lifted by a jib and hook, and is steadled by side arms. Verdict: too cumbersome.



2 Next, supporting bars were tried. They were laid across back and front of forks. Each bar had two sliding attachments to grip the frame (inset). Verdict: better, but not foolproof.



3 Improved attachment has two C-pieces sliding over each fork. When forks are raised, the cupped upper edge of the C-pieces grips the assembly frame from underneath. Verdict: attachment can slip outwards off the fork.





The final solution: C-pieces on the attachment have been modified into sleeves fitting securely over the fork. Stop screw at the tip of the fork stops attachment sliding off at abrupt halts. Verdict: simple but effective conversion, practically foolproof.



Could it Destroy

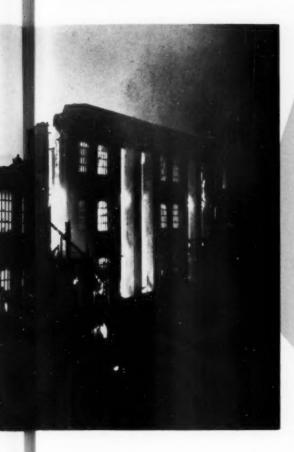
Fire can break out anywhere, anytime. But there are many ways of reducing the possibility of widespread damage

FIRE can ruin any firm. Many are forced out of business every year despite the fact that they have what is generally regarded as adequate fire insurance.

Every businessman knows that fire protection is important. But because it means spending money and effort on a non-productive activity, the subject seldom receives as much attention as it deserves. Many firms do not even satisfy the minimum standards laid down by the Government and local authorities.

Causes of fire are too varied to list.

BUSINESS



£20 Million Lost Every Year

More than £20 million is lost every year through fire, calculated on 1949 prices.

Between July 1955 and the end of 1956 some 40 industrial fires each caused over £100,000 damage. In few cases were sprinkler systems installed. In even fewer were there organized means of detection.

Main hazards were: open lift shafts, wooden stairs, unprotected steelwork, untreated insulation boarding.

Your Premises?

by William Guthrie

Their variety shows that it is impracticable to take precautions against every possible cause. So fire protection is concerned mainly with means of preventing fire from spreading rapidly if an outbreak occurs in any part of the building.

Principles of protection are well established:

- 1—Divide large areas into 'fire compartments'.
- 2—Render as fire-resistant as possible all materials used in the construction of the building.

3-Install a fire detection system.

- 4—Install a 'first-aid' fire-fighting system.
- 5—Good house-keeping (cleanliness and tidiness).

Although the principles have not changed, during the past few years there has been much progress in methods of applying them cheaply and conveniently. Lightweight partitioning, using such fire-resisting materials as gypsum plaster board, chipboard and wood wool, can be

used as firebreaks where brick walls are impracticable. Many new fireresisting compounds have been developed to minimize such hazards as light wooden partitioning and varnished panelling. Traditional smoke or flame detection devices have been augmented by types using radioactive isotopes, photo-electric cells or infrared rays. Even industrial TV cameras —
mounted on rotating towers—are occasionally used for centralized fire-spotting on dispersed sites.

Here is an up-to-date report on the main methods of fire protection. The vast Vauxhall factory
at Luton_is divided_into
'fire compartments'. Roof
trusses are 'clad' with
Sankey-Sheldon steel sheetingito restrict the horizontal
spread of smoke and flame
in the event of fire



Fire compartments

At Livonia, U.S.A., £10 million damage was done in 1953, when a 15-acre General Motors plant was razed to the ground in the most expensive industrial fire to date. The Jaguar fire at Coventry this year caused £2 million damage. Both would probably have been stopped in their early stages if there had been adequate fire barriers.

Each spread at great speed, hampering or stopping fire fighting. The cause of this was bituminous roof covering—which had nothing to do with the initial outbreaks. Heat and smoke rose to the roof and collected, unable to escape. Soon the roof decking, itself non-combustible, became hot enough to melt the bitumen covering, which fell through cracks on to the flames and fed them. Meanwhile hot air and smoke were able to spread along the rest of the buildings, setting off a chain reaction.

The dense smoke from burning bitumen and the congested layout prevented effective fire fighting at General Motors. At Jaguars, firemen reached the blaze through another bay and eventually got control.

Brick walls, dividing factory buildings into sections, are the safest method of preventing this danger. Unfortunately, they do not conform to the production engineer's concept of an efficient manufacturing layout—he probably visualizes conveyors running from one end of the factory to the other. But by using one of the modern partitioning systems a convenient place for a break can generally be found. Alternatively, the conveyor may be moved to one side and the rest of the width scaled off.

In any case the partitions should extend from the extreme top of the roof to as near the floor as possible. Openings should be covered by automatically closing steel doors or shutters.

At General Motors' new Vauxhall factory at Luton firebreaks are hung at intervals from the roof. They take the form of light partitioning, tailormade by Sankey-Sheldon.

Small firebreaks giving some degree of protection are easily erected in modern one-storey factories. Triangular partitions, pre-assembled to the correct size, are simply hoisted into position at intervals along the roof vault. Some of the materials used are more fire-resistant than thin gauge steel—gypsum plaster board and gypsum blocks, for instance.

At their new factory Jaguar are using another method of protection against the rapid spread of fire. Along the roof, at regular intervals, there are *Colt* double-purpose ventilators of a special type which automatically open wide—becoming fire vents—if the ambient temperature exceeds a certain level. This allows air and smoke to escape, preventing a build-up. Firemen can then see exactly where the flames are.

Often firemen have to clamber on to roofs to break skylights in order to disperse the smoke; the new ventilators do this automatically. Ideally, firemen break roofs at the calculated moment when the disadvantage of increased ventilation is outweighed by the advantages of greater visibility. But too often the heat is so intense that the roof cannot be approached. Automatic vents are then the only possible method of clearing the air.

Multi-storey buildings are poten-



Processes using asbestos or allica-based compounds greatly reduce the fire hazards of wooden partitions and fibre board. Moreover, thermal insulation is excellent

Photo by John McCann

tially more hazardous than onestorey buildings because fire travels more quickly upwards than horizontally. However, in modern buildings, with brick walls and concrete floors, each floor is a firebreak, subdivided by internal walls or partitions, provided they are of adequate fire-resistance.

Here is a guide to the fire-resistance of common building materials: 9in. brick, 6 hours; 3in. plasterboard, 1 hour; 1in. wood wool, plastered both sides, half an hour. Naturally, the thicker the material the longer it takes to disintegrate.

Older multi-storey buildings are inherently bad fire risks because floors made of light-section timber, and walls containing large amounts of wood, aid the spread of fire.

Every case has to be considered individually. But as a general guide, multi-storey buildings can be protected by closing off fire risks (lift shafts, dangerous stores etc.) with fire-resistant walls. Doors in internal brick walls should be fire-resistant and always kept closed. False ceilings of fire-resistant material can be suspended from the original ceiling;

if fire breaks out they will give protection for half an hour or more. As a final measure, all combustible partitions and panels should be treated with one of the many fire-retarding compounds.

Fire-retarding compounds

A bewildering variety, to treat every kind of constructional surface, is now available. Reputable manufacturers have their products tested at the Fire Research Station, Borehamwood, which issues disinterested reports on their performance. If the report is favourable it will be quoted by the manufacturers. In addition, the Fire Offices Protection Association will give advice on the best available materials.

Such compounds do not make materials non-combustible but they do reduce the risk of ignition and the rate of flame spread over the treated surface. They take various forms.

Paints are applied by brush or spray. Although formerly manufactured only in unattractive shades, they are now obtainable in various colours. They can be applied to any surface, but are most valuable for the more inflammable types of paper and fibre insulating boards which have been responsible for many serious fires.

In the presence of heat these paints blister or char but do not burn; thus they protect the under surface from direct flame. Where the heat is intense or prolonged their resistance breaks down.

Varnishes have been developed for the protection of decorative surfaces, like paintwork or panelling, which would be marred by fire-retarding paints.

Inert 'solutions' are extremely valuable because of their wide range of applications. Some are liquids containing non-combustible material (asbestos particles, for example) in suspension. To protect, they must fulfil two conditions: (1) they must adhere to the surface when subjected to heat; and (2) they must permit thick application without any danger of flaking or cracking. These requirements are not easy to meet. Ordinary plaster, which normally adheres strongly to a wall, strips

PROSPECT

quickly during a fire, even though it does not burn. The difficulty of getting adequate thickness, without 'slumping', on sloping or overhead surfaces, is obvious.

The manufacturers provide trained staff with special equipment. Sometimes nailed-on wire netting is used to provide a 'key'. The material is sprayed on so as to build up maxi- detection system, which uses a radiomum thickness.

Their advantages include: (1) there are no air gaps for flames to penetrate; (2) no dismantling is needed; and (3) they provide excellent thermal insulation into the bargain, saving fuel.

Mild steel has surprisingly poor resistance to fire; after 15 minutes, to operate warning bells, set off on average, the lighter steel stan- sprinklers or other first aid equipchions lose up to 80 per cent of their ment, and warn the fire brigade by normal strength. A jacket of bricks direct telephone. and mortar or a few inches of con-

hours. The cost of this is out of all proportion to the possible damage.

Detection systems

Early detection is vital. The newer types of detector are concerned primarily with cutting to an absolute minimum the time taken to give the

active isotope. It gives warning at the first sign of smoke, before any dangerous heat is generated. Detecting heads are either located at places of special risk-stores, valuable equipment, and so on-or distributed throughout the building.

All detection systems can be used

The earlier forms of fire detection

crete round a stanchion will prolong -bi-metallic strips which expand its fire resistance up to two or three under heat, to complete an electrical circuit-are simpler. They are, nevertheless, reliable, and their only disadvantage is that the fire must be serious enough to raise the ambient temperature to about 150 deg. F. before they operate.

First aid

Two comparatively new forms of A notable example is the Minerva first-aid fire-fighting are gaining popularity because of their convenience. These are the carbon-dioxide and dry powder extinguishers.

Both can be used safely on any type of fire and are not affected by temperature. They are particularly suitable for petrol and oil fires and for outbreaks involving live electrical equipment. They are often employed in automatic installations for protecting electricity generators and substations. Where articles of great value or financial records are in-

Continued on page 137

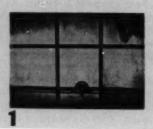
Explosions 'Nipped in the Bud'

An explosion is a fast-growing flame, building up pressure. The Graviner Manufacturing Co's method of explosion detection makes use of this

Heart of the system is a device which itself explodes when pressure increases, shooting out tiny droplets of special liquid at a speed far greater than that of the flame growth at the beginning of an explosion. These photographs, taken at millisecond intervals, show what happens when a Graviner container bursts.

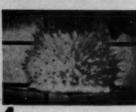
Explosions occur in the most unlikely processes-starch manufacture, plastics processing, pneumatic pewder handling systems. The reason is that material which does not normally burn is liable to burn or explode in a dust cloud of the right concentration. All it needs is a spark which may come from tramp metal in a grinder, faulty electrical equipment, or from a static charge in the material itself.











Low-cost Training Scheme for **Technical Salesmen**

A 12-month 'do-it-yourself' course in the works gives the trainee an all-round knowledge of the firm and its products

by Neil C. Hearne

being a trainee," says Orlando Oldham, "are boredom and

Oldham and Son Ltd., a Manchester firm of motor battery manufacturers, have done a good deal to overcome these hazards in the technical training scheme which they set up two years ago. Although the scheme follows the usual pattern of

THE occupational hazards of job-rotation, great emphasis is placed on practical work-trainees are not expected to spend month after month looking over someone else's shoulder. There is also a system of regular reports by the trainees and their instructors which helps to avoid the not uncommon feeling that people are 'forgotten' after they enter a scheme of this sort.

The firm, who have about 1,200

employees, make miners' safety lamps, emergency lighting and other electrical equipment, and a number of engineering products in addition to their range of batteries. Subsidiary companies operate in France, South Africa, India and Australia. The object of the new training scheme is to provide a steady stream of young men with thorough knowledge of the company's products and administration; they are to be employed mainly in the technical sales division and in junior executive posts overseas.

Orlando Oldham, one of the

Theoretical instruction, by a
senior technician, supplements
works training during the first
12 months. Then the trainee
is ready to see how the
company's products are sold



younger directors, is chairman of the Recruitment and Training Committee. He himself underwent a practical works training, after which he spent two years in the United States, including a course at the Harvard Business School. The scheme was largely thought up by him.

A basic principle of the scheme is that "a good man will train himself"—but there is also the necessity of making sure that the man is 'good' and capable of taking full advantage of his opportunities. Written comments, from both trainees and foremen, enable the committee to find ways in which the scheme can be improved. Mr. Oldham's final report on each man is passed to the executive directors, after circulation among the six members of the committee.

The 'Inside' Man. At the outset, it was stipulated that a large proportion of the trainees should be drawn from Oldham's ranks. Details were published on the works' notice boards, to the effect that: "We intend to take, if possible, not less than 50 per cent of our requirements from

within our own company; possibly we shall be able to improve on that ratio."

This was designed to destroy the illusion that "it's the outside man who gets the chance." Yet at the same time it was appreciated that there was a limit to the number of suitable people in the company. The ages of the applicants varied from 21 to 35. The first intake consisted of seven trainees—five from the company and two from outside.

Personal Touch. "You not only spend twelve months seeing how batteries etc. are made, but what the people are like who make them." This comment, by a young man who has recently completed his period of training, emphasizes the personal aspect. The advantage of the initial works instruction is that it gives adaptability and also a sense of contact with the firm as a whole. Thus the individual has a chance to decide for himself which branch of the firm's activities absorbs his interest most.

Trainees go from department to department individually. Each has his own 'technical father' (a senior technical executive) who reads the trainee's reports and comments on them.

'Do It Yourself'. Throughout, the accent is on the practical aspect of engineering: trainees are encouraged to 'do it themselves', rather than watch. They are not therefore entirely unproductive, although the time spent in instructing them obviously reduces the margin of their contribution. But since all work is blended into the normal working day, the cost of training is very reasonable.

The six stages in the training programme are:

- 1-Initial selection.
- 2-Works training (12 months).
- 3—Preliminary sales training (two months).
- 4-Final selection.
- 5—Final sales training (three months).
- 6-First appointment.

After a tour of the works, trainees spend an average of three weeks in each department. Then they have a fortnight with the company's London sales organization. This period of training takes approximately a year,



Trainees are not expected to spend month after month looking over someone else's shoulder. Great emphasis is placed on practical work-to prevent boredom and frustration

written examinations are held.

A plan outlining the movements of each trainee is prepared at the beginning of the programme, to avoid having more than one trainee in a department at a time. Foremen ("the key to the whole system") are invited to draw up their own training schedules, which they submit to the committee for approval. They are also asked to assess the trainee's ability and performance in such standard terms as: "Helpful and cooperative," "Meets you more than half way," "Attitude satisfactory," "Fits in well," and "Easy to work with." It has been found that the use of standard terms helps to ensure a degree of uniformity in assessments.

Trainees also do some theoretical work-two one-hour lectures each week for five months. During this period the principles of basic electricity, lighting etc. are taught. The lecturer is one of the firm's senior technicians.

There are additional courses in speech training and work study, and arrangements are made for trainees

psychologist; the remainder were from the company.

Sales Training. After works training, each man undergoes preliminary sales training, lasting two months. This involves a month 'on the road', a week in the Mining Division sales office, and periods of a day or so in such departments as costing and works statistics, stock recording, production control, purchasing, despatch, invoicing, and market research.

Final selection then takes place. But before his first appointment is made, the successful trainee spends a further three weeks on sales training. The purpose of the last five months is to give sales executives plenty of opportunities to decide whom they would like to select, and to provide the trainee with a valuable sales and administration background.

during which intermediate and final to attend a week-end residential Fair Selection. Does jealousy arise course on industrial subjects. Period- from the selection of 'inside' candiically they and the foremen are taken dates? One answer comes from a to a hotel at Grange-over-Sands for a trainee who has already had 11 years' week-end of discussions and lectures. service with the firm. He declares On the last occasion there was only that the selection methods are acone outside speaker, an industrial knowledged to be fair; and that he certainly has not come across any ill-feeling.

> The management emphasize that participation in the scheme does not make for privileged persons or necessarily result in promotion. Notices to that effect have been posted on the company notice boards.

> Pre-training Scheme. The firm have now established a secondary training programme, designed to ensure that the quality of the junior staff is maintained at a high level. Promising boys who join the firm after leaving school are carefully watched and encouraged, since they are regarded as potential candidates for the main training scheme. Through this new project, the management hope to make certain that the supply of candidates from the works will not 'dry up'.



The Customer Gives the

Rise

Those seeking

promotion should

first and foremost

court the firm's

customers. Such is

the theme of this

second extract from

George Copeman's

book on 'Promotion

and Pay for

Executives'

NE of the strongest impressions from my fifty interviews is that many of those who received rapid promotion were either directly connected with the successful promotion of sales or they were in a position to take some decisive step which increased sales. Even when they were chiefly concerned with production or design work, there was a fairly clear connection between the success of their own work and rising sales of a profitable line. They were able to appreciate that promotion comes most rapidly to those who most directly increase the company's net revenue. Nearly every company has basically

the same policy, to win customers and increase sales of goods or services at a worth-while profit. No would-be executive can understand his company's policies unless he understands the importance of the customers.

Colonel L. F. Urwick discussed this point in his Notes on the Theory of Organization.1 He stated the principle of the objective as follows: 'Every organization and every part of every organization must be an expression of the purpose of the under-

taking concerned or it is meaningless and therefore redundant. You cannot organize in a vacuum, you must organize for something.'

Mr. Samuel Vestey, the meatpacking millionaire, has been quoted for the following success formula: 'Find a need. Find a source of supply. Bring the two together.'2 What is true for millionaires is largely true for successful executives. However brilliant an accountant, however capable an engineer or personnel officer, if they cannot think in terms of the commercial aims of their company, they cannot hope to climb the executive ladder very far.

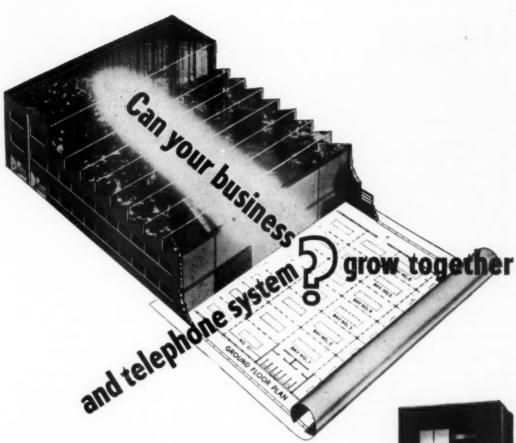
Commercial instinct. The difference between a man of commercial instinct and an empire-builder, as emphasized to me by a general manager, is that 'the empire-builder considers only how he can increase the size of his particular function or department, regardless of its ultimate

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¹ American Management Association, 1952.

² In a series of articles in the 'Sunday Express', January, 1957.





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30 Rises in 13 years

Some of the executives interviewed had no academic or professional qualifications, and yet they had received rapid promotion and frequent increases in salary. One man, in two successive employments, obtained thirty increases in salary in thirteen years. He had no qualifications, but he fully appreciated the importance of the firm's customers, and in both these companies—different though they were—it was repeatedly realized by top management that he was thinking in terms of the customers' needs and doing things which were helping to win more customers. He put his employers repeatedly in the position of having a 'guilt complex' regarding his pay. Again and again they found that his efforts were bringing more money into the firm, and they therefore felt that he should have some of it.

benefits to the firm or its customers. But the man of commercial instinct never considers any expenditure or any change in his department without thinking of its effect on the trading success of the firm. He never considers expenditure without also thinking of sales'. He does not always think primarily in terms of profits, for these may vary enormously with the level of sales. But he does think in terms of customers to be won and customers to be held. And if he does this successfully, the profits generally look after themselves. So does his promotion.

The importance of the commercial instinct to the successful executive can be illustrated by a comment made to me by a director of a large retail company. He had formerly been chief accountant of another large retail company, and one of his chief complaints about his former work was that he was 'too closely tied to the routine accounting figures'. But he added: 'In my present employment I have been given plenty of opportunity to develop a merchandising sense. In fact I have to take part in stock reviews, in reviews of the company's window displays, and so on.'

By contrast, it was obvious in a few cases that the executives interviewed had plenty of qualifications to do a job but never fully appreciated the importance of the commercial instinct. They could only obtain substantial promotion by offering their qualifications and experience to an outside employer.

Big firm problem. It is generally more difficult in a very large firm than in a smaller one for a junior executive to develop a commercial instinct. Much of the talk today of the need, in big companies, for employees to feel that they are wanted, that they are important to the firm, has missed the point. If employees want to feel that they are wanted by someone, then the aim should be to make them feel wanted by the customer.

In many a small firm with a badtempered and difficult boss, employees put up with relatively bad conditions of employment because they are close enough to their customers to feel that they are doing an important job. They are wanted by their customers, if not by their employers. I interviewed one executive who left a good post because he did not feel that his employer, who was getting old, took the customers sufficiently seriously. When an urgent order came in, the boss took the attitude that it could wait until tomorrow, whereas this young man felt that it could not. After a few years of such frustrating incidents, he resigned. He wanted to be wanted by the customers. He did not regard the boss as nearly so important.

The problem of staff loyalty hardly

arises for an executive who can inspire his staff with the need to serve the company's customers. Loyalty to the customers is even more important than loyalty to the firm or to a particular executive. It is the basic loyalty, on which the others are built. For the prime object of all—of the firm, the shareholders, management and employees—is to serve the customers.

It is no coincidence that the country with the highest standard of living in the world is the United States, and that this is the same country in which the customer is considered more important than in any other land. It is no coincidence that in democratic America, where the employee sometimes calls his boss by his Christian name, the customer is still addressed as 'Sir'. The customer is more important than the boss. The employee is really working for the customer, via the boss. It is the customer who ultimately pays the wage bill, though the boss handles the money.

The type of opportunity that can arise when an executive keeps his eye on the needs of the customers, can be illustrated by the experience of one senior man interviewed for this book. In his early career he had noticed that in one part of the country where his company had a large number of customers, there was no factory making a certain widely-used consumer product. He decided that he would resign from his present employment and with £100 lent to him by his mother, start up his own factory in this area.

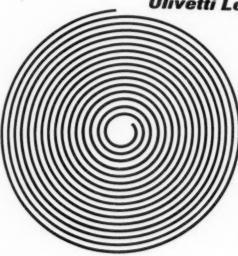
He had actually rented premises and was about to commence work, when his mother died unexpectedly. Due to various difficulties concerning her will, he never got the £100 and did not start the business. Today there is an extremely flourishing factory making the same product in that area. Someone else saw and seized the opportunity.

Although it is difficult for every executive in a large company to develop a commercial instinct, I interviewed one highly-qualified technical man who is well placed in his firm to do so. He is concerned with the development and marketing of new products.

Thus, he says: 'Although I belong



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The empire-builder considers only how he can increase the size of his particular function But the man of commercial instinct never considers any expenditure without thinking of its effect on the trading success of the firm

very stimulating. I am able to keep a continuous eye on the way the company's policies are moving. I never feel like a mere cog in a machine, in spite of the large size of the firm. It is possible for me to see the company's work as a whole. By contrast, some of my fellow scientists who were at university with me and who are now engaged on research work, are often frustrated by the manner in which they are put on a project, and when it has been running some time, it is either increased or reduced in size, with scarcely any explanation.'

This executive has pondered on how his colleagues on research could be told enough about the company's developing policies, in order to be 'kept in the picture'. But he has come to the unhappy conclusion that market conditions, and therefore the company's aims and objects, change so quickly and are so complex that it would hardly be possible to have a completely up-to-date system of explanation for his colleagues. They would probably get into an even worse state of frustration if given a regular supply of market news, for some of the things told to them would superficially at least contradict each other. Unless they spent hours studying commercial developments, they would never fully appreciate the reasons for changes in policy.

This seems a rather grim picture of the position in a large firm where technical change is continuous. But some people think the position is no brighter in large firms where there is little change. I interviewed one ex-

to a very large group, I find my career ecutive who had formerly worked for a very large firm which produces a rather stable type of branded product. In this firm he found that except for those engaged on fundamental research, which may change the product radically over a long period of years, there seemed to be 'little scope for executives to make individual and original contributions to the company's policy'. Even research workers had to work very much as a team, and so they did not receive much individual recognition.

> Another man who works for a very large company also complained that he is unable to connect his own work and ambitions very closely with the needs of the customers of his firm, because it is so very large. And a senior executive in another large organization told me: 'I entered this show very reluctantly when my previous firm was taken over. I still do not like the large-scale set-up, and would prefer to be a bigger frog in a smaller pool.'

> Blue-eyed boys. Nevertheless, some of the criticisms of large firms are undoubtedly a sign of failure in the critics themselves. The achievements of a career cannot generally be judged over a period of less than ten or twenty years. And if one looks today at the products, sales and other achievements of the larger, more famous firms, and compares them with those of ten or twenty years ago. it is immediately clear that there have been some tremendous changes. Big companies have to change their products and methods to meet changing needs, and in fact on the whole they

seem to be better at innovation than the smaller firms.

In spite of the importance of teamwork, there must be, and in fact are. people making important individual contributions to each of these changes. And here we find some explanation of the 'blue-eyed boy'. I found amongst some of the executives interviewed considerable feeling against blue-eyed boys. But the person who is regarded by his colleagues as a blue-eyed boy because he is promoted very quickly through the firm, is sometimes one who, by his clear thought and expression, is helping the firm to make some of its basic changes in policy.

When he appears to be 'hobnobbing' with superior executives, he may be in fact indulging in quite useful conversation. He may have the ability not merely to see the need for changes but he may also have a casual way of putting them over without offending his superiors.

There are, of course, other types of blue-eyed boy. But the 'useful' type should not be overlooked.

Misleading impression. Unfortunately schemes for assessing the qualities and performance of executives in big companies sometimes give a misleading impression. An executive is assessed under a number of abstract headings, such as initiative, and he may therefore tend to keep his gaze on these abstractions. He may not fully appreciate that all these qualities must be related to the needs of the company. For example, initiative in furthering the main aims of



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9.

BUSINESS

the company is the type of initiative most required.

One executive told me he thought that he was going to obtain quite substantial promotion because he had 'come to the chairman's notice by showing initiative in running a staff ball'. This action was important enough in itself, but it could only very indirectly help the company to win more customers. The man had an exaggerated idea of the importance that his superiors would attach to this particular activity.

Customer versus superior. Every executive who wants promotion has to consider how much he should court the customer and how much he should court his superior executives. If he plays at internal politics and endeavours solely to curry favour with senior executives, then he may come to disaster. Unfortunately, as one sales manager said to me, 'internal politics do play an important part in the affairs of some large firms'. One result is that smaller competitors can start up and become well established, before their rivals are even aware that they are in the market, let alone do anything about it.

The executive who wants to succeed must try to put aside internal politics and concentrate on courting the customer. His approaches to his superior executives should be as far as possible 'on behalf of the customer'.

This is a difficult concept for those who are engaged in performing one small function in a very large enterprise, but it is a very necessary concept. If a man's superiors are any good at all, over the long period the arguments, actions and proposals which will impress them are those of subordinates who really have the interests of the customer-and therefore the firm-at heart.

The short ladder. Due to the development of modern management techniques, the problem of courting the customer to obtain promotion in the large firm is not nearly so difficult it sometimes appears. And certainly organization charts can be ery misleading. Very few of the executives I interviewed were con-



The problem of staff loyalty hardly arises for an executive who can inspire his staff with the need to serve the company's customers

promotion, with a large number of stages. Apart from those already at the top, they almost invariably reported direct to the top or to one step below the top.

By 'the top' I do not necessarily mean the chairman of the board of the major holding company in the group. I mean an executive who is able to make important decisions affecting the products that customers will be given an opportunity to purchase. He may be head of a division or a subsidiary company. So far as decision making and the flow of ideas are concerned, the chain of command in industry is generally fairly short.

In the traditional type of organization chart the lines of authority come down from the shareholders to the board of directors to the various departmental executives. And the chain looks fairly long.

But it is also realistic to look at the 'chain of command' in a different way. The orders come from the customers, and they are literally called 'orders'. They come through the sales organization to the production organization, and a lot of the people who on the old type of chart were considered at the top, are really ancillaries or appendages to the main functions-very necessary though they may be.

For example, shareholders are an ancillary, providing capital. They are rather on a par with the rank and file employees providing labour, and with the suppliers of raw materials. Top management is also an ancillary service, providing research into longterm problems and co-ordination of different functions in a common

scious of being on a long ladder of effort. Top management does not usually give day to day production orders, because these come direct from the customers, and are interpreted (or anticipated) and put into effect by middle management.

> Top management, however, receives the results of day to day production and sales, and acts as a team of research workers, studying these results to see if there should be any changes in products, in the labour force, in sources of supply, in the capital structure and equipment of the firm, in its organization, in its system of communications, etc., so that it may the better fulfil customers' orders tomorrow.

> It follows that an executive in the middle operating range, who is responsible for producing or selling something or running a special department, and who wants promotion, should think of his superiors not as people whom he should approach with the schoolboyish request: 'May I do such and such?' He should think of them as research leaders, to be approached with requests with the following implication: 'Do you think that if we did such and such we would obtain more customers, cut our costs, give better service . . . or as the case may be?' If his top management do not allow him to exercise initiative in meeting customers' orders, if they are too authoritarian and do not appreciate that their work largely involves research and planning ahead to guide and co-ordinate the efforts of middle management, then he should perhaps consider leaving the firm. For the task of re-training his superiors is generally beyond his powers. END

MANAGEMENT AT WORK

IDEAS AND ACTIONS OF PROGRESSIVE FIRMS

Magic eye aids safety drive

AN ingenious device, in which photo-electric cells activate a tape-recorder, was used recently at the Liverpool works of Automatic Telephone and Electric Co. Ltd. to put across safety messages during the National Industrial Safety Week.

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something up you have to put it down to gas, but also a set of six caseagain-and your dream may be broken." There are about 12 such messages.

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Where has the salesman gone wrong? The Gas Council's new manual gives the answer

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* Sales Training Manual by Chas. C. Knights, F.I.P.A., F.S.M.A. Gas Council, 10s. 6d.

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DEC

rather strongly how much public, in addition to employee relations value is gained from such publications.

The research was based on a 600-strong sample of the firm's 26,000 employees. Employee readership of the monthly *Ingot News* was found to be 13,000. But outside readership amounted to another 9,000—friends, relations and acquaintances of employees. In the case of *Ingot*, a quarterly, as many as 77 per cent of employees questioned passed a copy on to someone in the family. Inside readership of *Ingot* was 14,000, outside readership 13,000.

Stockist committee helps their marketing

Two years ago, Wolf Electric Tools Ltd. formed a Distribution Committee to supervise marketing. Notable feature of this committee is that it contains not only sales, publicity and service executives from the firm, but also 12 representatives of Wolf stockists from all over the country.

The committee can deal with anything concerning the marketing of the company's products, including interpretations of sales policy, discount structure, release dates for new lines, carriage paid rates, carton design and packaging methods. Before each meeting, a letter goes out to all stockists inviting suggestions for the agenda. Lively answers are generally received.

The firm feel their committee is an excellent way of keeping dealer relations sweet, while the actual work it does is constructive and very often effective.

Vitamin pills keep employees fit

DURING the winter months, the B.B. Chemical Co. Ltd., Leicester, are making a free issue of vitamin capsules to their 700 employees. They also make capsules available at cost price to employees' familiary.

The action was taken on medical advice of an attempt to guard against disrue of working through in-



fluenza and other winter illnesses. The idea is that vitamin C, while not guaranteeing immunity, can certainly build up considerable resistance to infections.

Results? The winter is not over yet, but while other Leicester firms were crippled by a recent epidemic, B.B. Chemical only had a handful of employees away sick.

Their office building looks to the future

ALLIANCE Building Society, Brighton, are planning to build the spectacular office building illustrated on this page. They have acquired an eight-acre site of considerable beauty at Brighton, which they intend to preserve as far as possible, but which gives them plenty of room for expansion.

Before the plans were drawn up, management consultants were called in to examine the existing head office set-up, and to suggest ways in which reorganization could improve efficiency, so that the future building could take advantage of any projected change.

As now planned, the building will be of considerable interest. It is hoped to provide intercommunication by, among other things, closed circuit television, while full air-view of all steps in the milling process.

fluenza and other winter illnesses. conditioning and sound-proofing are The idea is that vitamin C, while not also envisaged.

Of the three above-ground storeys, only one—the first—will be used for actual office work. The idea is to avoid transferring documents from one floor to another.

Externally, the building will try to be 'a joy to behold', say the firm. But the aim is also to produce 'a really pleasant office in which to work.'

TV camera reduces operating staff

AT the Duisberg, Germany, plant of Thyssen-Hütte A.G. a single operator now controls the movement of ingots from soaking pit to blooming mill—a distance of some 100 yards. He cannot see all parts of the line owing to building obstructions, but a TV camera with travelling focus enables him to follow the progress of ingots all the way.

This firm also use closed-circuit TV to check on steel sheets passing through the hot strip rolling mill. Formerly vision was hindered by a crane and a pedestrian bridge, so that several operators were needed. But with an 'automatic diaphragm' on the camera, the focus can be adjusted throughout the scanning field, providing an uninterrupted view of all steps in the milling process.

BUSINESS BOOKSHELF

THE HIDDEN PERSUADERS by Vance Packard (Longmans, Green) 18s. net, 19s. post paid. Any book with a chapter headed "The Built-in Sexual Overtone" is bound to interest quite a few readers. This book, however, has a much wider appeal. For it explores a number of ways in which the advertising industry has sought to appeal to the emotions rather than to the rationality of potential customers.

It starts from the economic basis of these appeals, namely the fact that in these days of mass-produced, high-quality goods, there are often no real differences that could appeal rationally to the customer, between two brands of cigarettes, two bottles of whisky, two washing machines, two packets of detergent or two motor cars. Therefore the advertiser attempts to create differences based on the semi-conscious or sub-conscious emotional urges of the public. Sex is only one factor. Class and caste differences, and the urge to strive upwards are two others.

The book leans heavily on the findings of Dr. Dichter and other pioneers of "motivational research"-the technique of depth interviewing to find out why, deep down, people like one thing more than another. Once an advertising agency knows the secret yearnings under the surface, it is in a position to make an appeal to customers, based on their hidden desires. For example, the American way to sell sedan cars is apparently to put a convertible in the showroom. This attracts the potential customer, who daydreams of illicit romance. But as a family man he drives out as owner of a new sedan.

Mr. Packard gives so many examples of successful adaptation of advertising campaigns, arising from motivational research, that it is fair to assume he is sold on the idea. However, there has been a lot of controversy in the United States about the moral validity of appealing to customers' sub-conscious yearnings, and thus manipulating them into buying things that they would not have bought in their more rational moments. So the author sits neatly on both sides of the fence by including a final chapter in which he allows this criticism full voice.

Mr. Packard is, however, probably a little too hard on the cause which he has espoused throughout all the other chapters. For once the breadline has been passed and there is an abundance of durable and other goods, does not the average customer want emotional satisfaction as well as a labour-saving set of gadgets?

EFFECTIVE PERFORMANCE AND LEADERSHIP by C. L. Shartle (Staples) 30s. net, 31s. 3d. post paid. Written by an American professor, this is a study of the psychological situations in which executives find themselves during their daily work, and the tactics sometimes used to improve their own positions or get out of difficulties. This is not solely a firsthand account of experiences related directly by the author. Certainly there are some first-hand experiences, but many are stories retold from earlier books on the psychology of management. This is a very readable work, and one of the few books of its kind in existence, dealing with management from the individual's side rather than the company's side.

THE INVESTMENT DECISION by J. R. Meyer and E. Kuh (Oxford University Press) 48s. A detailed statistical and economic study of the investment behaviour of 15 American industries during the period 1946-50. and how their decisions were related to outside economic and business factors. Not surprisingly, it was found that the need for additional capacity was in general the most important short-run factor influencing investment decisions when business was improving. And the availability of liquid funds was the most important factor when business was stable or declining.

FACTORY ORGANIZATION AND MANAGEMENT by T. H. Burnham and D. H. Bramley (Pitman) 25s. net, 26s. 6d. post paid. Seventh edition of a well-known text in the publishers' Engineering Economics series.

THE DIRECTORS DIARY 1958 (Newman Neame), ordinary edition in buckram, 36s. 9d. post paid; special edition in goatskin, 64s. 9d. Planned in consultation with the Institute of Directors—a suitable Christmas gift for fellow members. Contains a directory of directories, notes on business expenses, airline information, a list of principal provincial hotels, exchange rates, a guide to Government departments, a list of British commercial representatives overseas, postal and other reference information.

THE MALTA DIRECTORY AND TRADE INDEX (Malta Publicity Services, 157 Merchants Street, Valletta) 25s. 6d. net, 27s. post paid.

THE CHAMBER OF COMMERCE MANUAL 1958 Edited by Andrew Shonfield (Newman Neame) 50s. net, 52s. post paid. Newly revised to include not only extensive British and Commonwealth and Foreign directories, but also sections on economic trends and finance, and on the latest developments affecting commerce, such as the European Free Trade movement.

PLANNING FOR PROGRESS IN RETAILING (British Institute of Management), 30s, net, 31s, 9d, p. st paid. The papers given to the 1 v-7 Retail Management Conference.

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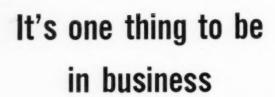
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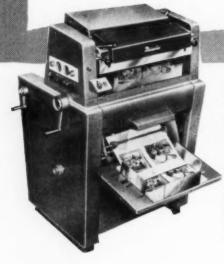
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Their Health Bank Boosts Morale. Checks Absenteeism

by W. Wolff

HEN an established employee of Schweppes Ltd., mineral water makers, falls ill, he receives sick pay-at one-half or three-quarters of his basic rateas of right. The longer he has been with the company, the longer is his right to receive sick pay. If he has been with the company long enough, he can claim it for a year.

That is the basis of the Health Bank scheme which the company pioneered seven years ago. Sir Frederic Hooper, the managing director, explains its principle in this way:

"One of the chief problems in industrial relations is to build up and maintain the dignity of the individual so that he is no longer just a worker but an individual.

"What does that mean in middleclass terms? It means that one of the great problems of life, health, is taken care of.

"In all the jobs in which I have ever been, it has never occurred to me that if I became ill or was advised by my doctor to have an operation, my employers would not be most sympathetic.

"But in the case of the worker that sort of thing has never been faced. Of course, many employers would starting date of the scheme) to count



Schweppes' sick pay scheme began as an experiment. Now it has become a vital feature of the company's employee relations policy

to his employer cap-in-hand. And cap-in-hand and dignity don't go from the start. together.

"Besides, I have seen countless instances of chaps who've been so afraid of losing their jobs or of dropping greatly in money that they have taken a chance on health."

At the start, the Health Bank was an experiment "using Schweppes as a laboratory for trying out ideas to see if they worked." Each of the company's 2,000 employees was given a booklet, telling them that in case of illness or accident, they were entitled to sick pay as laid down in Table 1.

It was not practicable to allow all service before January 1, 1950 (the immediately say to the worker, 'Have directly. But employees with nine the second year of the scheme. The

the time off.' But he would not be or more years' service at that date entitled to it. He would be going were allowed to build up their entitlement at the 'over nine years' rate

> In addition, each employee was given a scale of credits (see Table 2) to help to start off the scheme. Sir Frederic wanted the benefits of the scheme to make themselves felt at once to the greatest possible extent, and the credits were designed to tide over the first years of the scheme while balances were building up.

In this way, an employee with less than five years' service would nonetheless be entitled to two weeks sick leave at half-pay during the first year of the scheme, and (provided no claim had been made in the previous year) to one week at three-quarter pay and two weeks at half pay during credits for those with longer service were correspondingly more generous.

Four conditions are attached to the scheme:

- 1—The total sum receivable each week by an employee from the company and national insurance taken together, shall not exceed his or her normal basic wage or salary.
- 2—Employees must produce medical certificates, if requested, for every absence for which sick pay is claimed.
- 3—The illness, accident or absence for which benefits are claimed shall not be caused or aggravated by the employee's own fault of omission or commission.
- 4—An employee whose absence is due to circumstances which lead to compensation from the company (under Common Law or otherwise) shall receive the sick pay to which he is entitled under the scheme, but the company shall have the right at their discretion to deduct from the compensation the amount of sick pay so paid.

The scheme applies to established employees only. Establishment takes place within three to six months of entering the company's service. Before establishment, every employee must have a medical examination.

Although the company will fully honour any employee's entitlement as long as he is in their service, they do not undertake to keep on indefinately any employee who is constantly ill. But if an employee is dismissed for reasons of health, he has the right to appeal direct to the managing director.

Nonetheless, it is a principle of the scheme that no employee will be dismissed while absent and in receipt of sick pay to which he is entitled under the scheme, except in a clear and proven case of an abuse of the scheme.

A further condition is that nothing in the scheme shall reduce the company's right to dismiss an employee, or shall entitle a dismissed employee to claim for loss of benefits which the scheme confers.

The company may, if they think fit, require an employee to submit to

Length of Service within the Scheme	Maximum proportion of basic wage payable by the Company as Sick Pay	Length of time during which the employer will be entitled to Sick Pay in the Scheme
Under 1 year	Half Basic Pay	For 2 weeks
Over 1 year but under 9	Three-quarters Basic Pay	For one week in respect of every complete calendar year of service within the Scheme up to a maximum of 8 weeks, <i>less</i> the number of weeks claimed at $\frac{3}{4}$ rate during the current and 3 previous calendar years
	Half Basic Pay	For such further number of weeks as would increase the number of weeks of Sick Pay (at either rate) since date of entry to the Scheme to a total equal to 2 weeks for every complete year of service within the Scheme
9 or more years Three-quarters Basic Pay Half Basic Pay	For 2 weeks in respect of every complete calendar year of service within the Scheme up to a maximum of 12 weeks, less the number of weeks claimed at ½ rate during the current year and the previous calendar year.	
	For such further number of weeks as would increase the number of weeks of Sick Pay (at either rate since date of entry to the Scheme to a total equal to 3 weeks for every complete year of service within the Scheme (but not exceeding 52 weeks in all)	

TABLE 1

An established employee's entitlement to sick pay varies with his length of service and his previous claims under the Health Bank scheme

an examination by their own medical officer or by any other doctor whom they nominate.

P.A.Y.E. tax and pension fund contributions are deducted from sick pay.

If the company decided to bring the scheme to an end, the employee's balance of entitlement, once built up, would be honoured in full until used up, or until the employee left the firm.

A generous gesture to young employees is that National Service counts as service with the company and therefore entitlement to sick pay, provided the employee was on the establishment of the company or in its regular employ within four weeks before joining the forces.

Generosity is in fact the keynote of the whole scheme, despite the formal conditions with which, inevitably, it is hedged. For example, in the case of an employee with 20 years' service or more, the company regard entitlements as minima and leave themselves free to increase the amount and length of payment if they think fit. There have also been cases of young people, with only short periods of service, who have been given paid sick leave up to a year without entitlement, when there were serious illnesses such as T.B.

An employee may also be granted, within the limits of his entitlement, a period of convalescence following illness or accident. And he may, if

Continued on page 134



DECEMBER, 1957

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"What's misapplied genius, Miss Kirby?"



" Why?"

"Well, Mr. Thorne says that's what I've got."
"What made him say that?"

"I sang a song on his Stenorette while he was out."

"I think Mr. Thorne was right. Anyway, how did you know how to work it?"

"Oh, that's easy. I just read the instructions.

After all, you can work it and you're a girl."



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the individual typist. It has automatic erasure, back spacing and place finding facilities, and costs virtually nothing to run since a single tape may be used many thousand times.

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BUSINESS



Special BUSINESS Report

French 'B.E.E.' Highlights Automation Trends

Over 300 firms exhibited products from eight countries at the biggest-ever Paris office equipment show. Here is an on-the-spot account by Laura Tatham

OMINATING the recent Paris exhibition of office equipment—in shadow, if not in substance—was the electronic computer. Though few of these machines were actually on show, the idea of 'integrated data-processing' was clearly in the back of many manufacturers' minds.

Punched paper tape seemed to be everywhere. Accounting machines, book-keeping machines, typewriters and even small adding/listing machines were hooked up to tape punches. "Sooner or later these machines will be required to produce fodder for computers," one exhibitor explained. "The forward-looking businessman will be more willing to invest in today's models if they are capable of being integrated into a computer system."

At this year's exhibition—the largest of the series—more than 300 exhibitors were showing machines from eight countries. Particularly noticeable was the dominance of the Germans in the field of small calculators and adding/listing machines, closely followed by the Swiss and Swedes.

The Parc des Expositions at Porte de Versailles, Paris, provides an im-

posing setting for an exhibition. The layout of the building does much to minimize noise and confusion. The visitor arrives in a reception hall round which are grouped a number of small stands showing publications on every conceivable aspect of office work. The exhibition is housed in a number of relatively small halls, each



The Siemag Multiquick illustrates the trend towards dual-purpose hook-ups for the smaller firm

opening out of the other. This helps in locating stands (each stand number is prefixed with the hall number in the catalogue) and does much to avoid the feeling of confusion which besets the visitor when hundreds of exhibits are displayed in a single crowded hall.

Trends in the exhibits were generally similar to those which appeared at

this year's Business Efficiency Exhibition at Olympia. Small machines were much in evidence, and it was obvious that Continental, as well as British, manufacturers are paying more attention to the small business.

There was further evidence of a tendency to design machines which not only save time and labour but also reduce expenditure on equipment. In a number of cases this is done by linking together two orthodox office machines so that they can be used, when required, as a single unit.

An example—of which there were at least two on show—is a solenoid-actuated adding machine operated direct from a typewriter. The small business can use either of the machines independently, or it can link them together to mechanize book-keeping without acquiring additional equipment.

The Siemag Multiquick (a nonprinting calculator/electric typewriter hook - up) has a tape - punching unit as an optional extra. The operator types the necessary words on accounting documents, works out extensions etc. on the calculating machine, and then presses a button, which causes the sum appearing on the calculator dials to be typed automatically. Any or all of this material is transmitted automatically to the tape punch. In large concerns, machines of this sort would provide a useful means of producing material for an electronic computer.

Time- and labour-saving is accomplished, in many cases, by telescoping two functions. For example, the German Geha duplicator has a double-width roller, on which two stencils can be placed side by side. This means that two pages of duplicated material can be produced simultaneously. A variation on the same theme is a two-part duplicator which works in a tandem. This French machine, the Super-SAM, prints direct on to a roll of blank paper held at one end of the machine. During the first printing operation the paper passes through rollers which print on to it in colour large display - type headings, made on a rubber matrix which wraps round the roller. As the paper progresses through the machine, it takes a second impression from an ordinary typed wax stencil in a second colour if required. Finally a guillotine cuts the printed material to the required length, and the machine stacks the cut sheets at the far This technique provides an economical means of producing, say, leaflets or handbills, where the display type remains unchanged from issue to issue but the typed material is varied.

Another development in the duplicator field not yet seen in Britain is the French Electro-Report. This to produce a variety of documents. machine prints from a carbon ribbon. Reproduction is from embossed light metal masters, which consist of narrow strips of metal joined in long sheets—in appearance not unlike the paper sheets used for strip indexes. The metal is so thin that embossing can be done on an ordinary manual or electric typeduplicator with a line-selector device entries. Since the masters are metal,



Electro-Report, which reproduces from embossed metal masters

so that a single master can be used

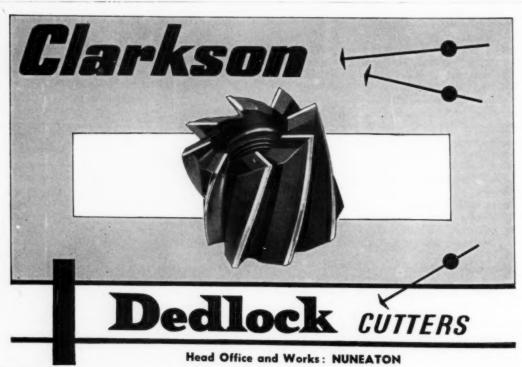
The line-selection device is ingenious. When the master copy is typed, a single carbon is prepared; this is wrapped round a drum, to form a visible index to the material on the master. The operator sets a pointer against the appropriate line on the carbon and presses a pedal; the line is printed and the paper is either writer. The master is used in a ejected or left in place for further

any required number of copies can be taken, and the masters can be find away for future use. This means that much of the typing usually quired for 'systems' duplicating can be eliminated.

Star of the show—as far as public interest was concerned - was the Smith-Corona portable electric typewriter, the first of its kind. Scarcely larger than a conventional portable. it has all the attributes of a full-size electric machine.

Attractive appearance was a noticeable feature of the French exhibits. Outstanding in this respect was the intercommunication equipment, often produced in streamlined creamcoloured plastic cases, complete with similarly coloured telephones with perspex dials.

Appearance - sometimes, it appeared, at the expense of utility was also a feature of much of the executive furniture on show. Some of the desks, chairs and cabinets were monstrous in size, boldly modernistic in shape, and available in a range of



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BUSINESS

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brilliant or pastel colours. Finishes were usually of shining laminated plastic, and the tops were padded with luxuriously squashy 'leather' which, on close inspection, revealed itself as vinyl plastic. One desk, for example, had a top shaped like a large segment of pie, measuring about 7ft. at its widest part, yet contained only three small drawers in one pedestal and two in the other. Its finish resembled the palest blond wood, and the top was covered in sky-blue.

More prosaic wood and metal furniture, designed for ordinary office use, was similar in design and appearance to British furniture, except that there seemed to be more provision in typists' desks for the orderly storage of paper.

Of special interest among dozens of small calculators and book-keeping machines was the *Addo Class 10 000*. This has been developed from a 'straight' adding/listing machine to provide small-size book-keeping equipment. A notable feature is its double printing head,

which enables the operator to produce two original documents, aligned side by side on the carriage, at a single operation. The machine can be made to print the same information simultaneously and automatically on both printing heads; alternatively, the two heads can be used separately.

Unlike its predecessors, this machine does not have a changeable 'programme' mechanism. Tabulator stops and so forth are built into the machine to customers' specifications. This means that any number of different documents can be used on the machine, so long as they are similar in size and layout.

Photocopying machines were much in evidence. Among them was a new and smaller model of the *Kodak Verifax*, and much lower in price.

Another attractive exhibit was the American *Soundscriber* pocket-sized recorder, which uses tiny plastic discs, small enough to be mailed in an ordinary envelope. This machine, which weighs 6lb. and is mainspowered, is intended primarily for



The Pano electric card file holds up to 285,000 cards, has push-button control

use in conjunction with the same maker's office machine, which can be used for transcribing records from the miniature model.

At the other end of the scale was a model of the Bull Company's latest electronic computer, the Gamma 60. This machine, which is expected to go into production next year, has a magnetic tape external storage system. The problem of matching out-

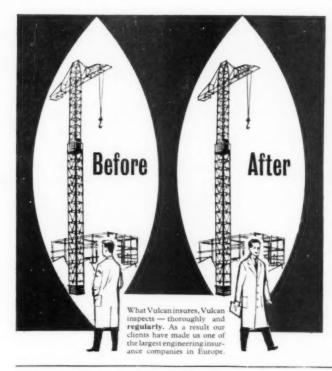




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BUSINESS



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INDUSTRIAL VACUUM CLEANERS

THE BRITISH VACUUM CLEANER & ENGINEERING CO. LTD. (Dept. 1) Goblin Works, Leatherhead, Surrey. 111 DECEMBER, 1957

put with computing speed has been solved by linking no fewer than six tabulators to the computer. The machine feeds one tabulator to capacity, then automatically switches its output to the next, and so on. Input material is treated in much the same way.

A tabulator by the same company has been modified to print direct on to ledger cards and other noncontinuous stationery.

French branches of the large international companies were well represented, and in every case exhibited machines launched at the Business Efficiency Exhibition.

Among many practical ideas were:

• A typist's copy-holder with electric action. This enables a fast typist to keep the copy continually moving at a slow speed below a horizontal cursor; a slower operator can move the copy intermittently by pressing the pedal only when movement is required.

A hand-operated punched card duces a document about the size of



Either continuous or intermittent feed is possible with the Lector electric copy-holder for typists

system with an electric jogger for quicker sorting.

- A summarizer board with an electrically-powered horizontal cursor, operated by pressing a pedal.
- A typewriter lamp which can be used with any machine. It clips to the base of the machine at the back and is curved over to throw light on the platen.
- A tiny portable card index for travellers. The cards are housed in a flat metal case with a drop-front for easy access.
- Microfilm equipment which produces a document about the size of

a postcard as an alternative to milifilm. Up to 48 pages can be photographed on one card, and this can be slid into a small pocket file and indexed. A small desk-top reader about the size of a typewriter goes with it.

- A portable front-feed typewriter, no larger than an ordinary portable machine.
- Mobile punched-card cabinets which move on larger-than-usual rubber-tyred wheels. The cabinets contain removable racks of cards.
- Electro-mechanical card files, to hold 285,000 cards. These are held in eight trays. The operator sits in front of the file and presses a button to bring the required tray to hand. The cards stay in place without being attached, and can instantly be removed or replaced.
- Vertical suspended file cabinets with magnetic rails so that folders cannot accidentally be knocked off.

Be a real Father Christmas

This is just the time, this pre-Christmas period of goodwill and good resolutions, to consider how you can make the working life of your staff easier during the coming year. One thing you *can* do is to banish the drudgery of copy typing and release your typists for more profitable work in 1958.

Give them a 'Verifax' Copier

The Kodak 'Verifax' Copier is a wonderful time-saver — does work equivalent to that of ten copy typists. And it has many good qualities besides its speed. The copies are produced dry, ready for immediate use. Six or more copies can be made from one intermediate. The Copier takes up little more desk room than an ordinary typewriter and is entirely self-contained (it even has a built-in trimmer). Send for details.

KODAK

Verifax

COPIER

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At 34 lbs., it's one of the lightest standard machines on the market. Yet this has been achieved without sacrifice of strength or durability.

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Both carriage and keyboard can be secured by a key-operated lock.

PLUS

Clarity of type. Automatic margin setting. Resilient rubber mountings to ensure remarkable quietness. Unique positioning, design and simplicity of controls—all these are but a few of the many features of the new Byron Mark I.

BYRON BUSINESS MACHINES

Makers of Typewriters for over 30 years

Arnold Road, Nottingham 'Phone: Nottingham 73061 London Office and Showrooms: Ingersoll House, Kingsway, W.C.2

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SAVE 68% FLOOR SPACE



New Shannoblic LATERAL Filing Saves Time, Space and Money by GOING UPWARDS instead of OUTWARDS

'Skyscraper' isn't quite the word for a Lateral Filing unit, but in both cases the principle is the same: build upwards not outwards-and valuable space will be saved.

Lateral Filing more than doubles the volume of folders you can get in any given space. Better still, odd corners and passages—previously wasted—become valuable filing

But space-saving isn't the only advantage of the system. Far from it; time and labour too are saved—and efficiency is greatly enhanced.

With Shannoblic Lateral, access to files is direct. No drawers have to be handled. Each unit is like a library where you go straight to the volume you need without touching anything else

This 'spot' identification is achieved by full-vision titlestrips incorporated in each file. Used in conjunction with coloured signalling and charting devices, these title-strips give instant location of any file . . . plus heightened visual control over all business activities from Personnel Management to Job Costing.

Single rail suspension-an important new feature of Shannoblic Lateral-makes grouping and handling of files a simple matter: a slight tilting movement easily engages or disengages the file required.

Thus, Shannoblic Lateral forms both the master 'nerve centre' for the larger concern . . . and the ideal space-saver for the smaller one.

Shannoblic Lateral Filing is available in open cabinets, cabinets with sliding or folding doors and in Desk Top Units, as illustrated (which clearly shows the unique 'T' rail suspension for fitting to existing cabinets or replacing corner shelving, etc.).

Ask for details of the system now. Every Executive should know about it. Just write 'Shannoblic Lateral' on your letterheading and post to:



The Shannon Limited

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DECEMBER, 1957



but-points don't break when you use

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It's sound sense to use Mirado pencils for all business and personal writing. The points won't crumble or break under normal usage. For two reasons. The lead itself is of a fine, smooth and long-lasting quality, and the Eagle Patent Superbonding process welds the lead and the wood casing into one inseparable unit, giving maximum resistance to breaks. Change to Mirado and watch your pencil costs decrease.

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Our Mileage Meter measures how much line a Mirado lead will make. On the revolving drum, the pencil makes a continuous and easily measured line. The wear of Mirado leads has been tested until every pencil will make a smooth black line over 35 miles long.



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These BETTER quality towels REALLY DRY and do not disintegrate when wet. They are CHEAPEST IN THE LONG RUN because released ONE AT PULL from the cabinet there is NO WASTE.

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No possibility of chapped hands or irritating queues as with expensive Hot-Air Drying Equipment.

Full details on application to Towel Dept.,

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For absolute permanence, use Verithin Coloured Lead Pencils when checking, or preparing graphs, maps and records of all kinds. The insoluble coloured lead won't run if wetted by rain or spilled water; won't smear under moist hands; won't smudge when rubbed by other papers. What is more, the tough, resilient lead can be sharpened to a needle-fine point that will hold under extra hard pressure. A Verithin Coloured Lead Pencil gives over 4,000 check marks with one sharpening-real economy, real reliability. 7d. each. 25 vivid colours.

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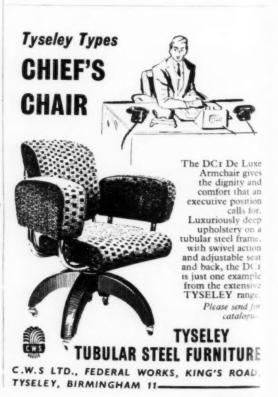
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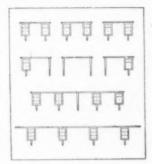
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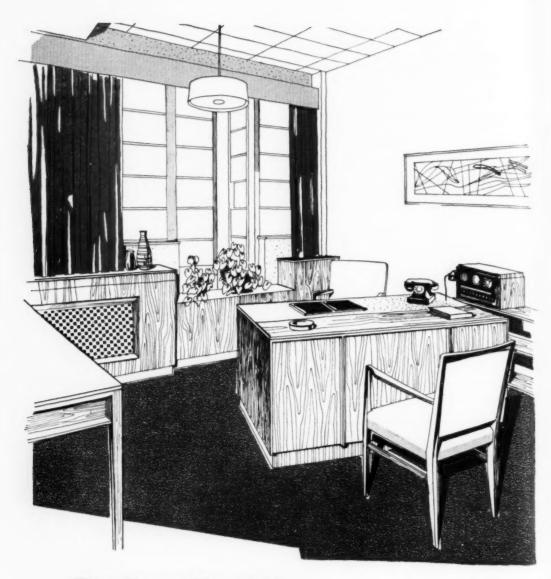
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For Display Typing

LATEST of the Olivetti typewriters, the Graphika, has a feature hitherto only available on some electric machines - proportional spacing.



Proportionally-spaced lettering

Each letter is allocated a space appropriate to its width instead of being spaced uniformly. The finished work, therefore, has a closer resemblance to printing than that produced by a conventional machine.

In addition, a choice of six different spacings can be obtained between words or letters. This effect is achieved by using a device called an automatic expander in conjunction with the space bar. These two facilities should enable a display typist considerably to improve the appearance of her work.

The Graphika has a choice of two new typefaces, one designed by a Swiss, and the other by a French,

British Olivetti Ltd., 10 Berkeley Square, London W.1

Offset Litho Paper

NEW paper, known as Officet A Litho Wove, has been developed to exploit the full possibilities of small offset-litho duplicators.

The manufacturers describe the paper as "a genuine shade of white." It has a smooth finish and is carefully trimmed to ensure trouble-free

feeding and good registration. Specimens, showing a 120-screen half-tone and a typewritten caption, demonstrate that reproduction is excellent.

Four sizes are available, ranging from 17in. by 27in. to quarto.

Gordon and Gotch Ltd., Paper Division, 39-40 Farringdon Street, London E.C.4

Portable File

BUSINESSMEN who take their work home or like to keep private papers in an orderly way will welcome the Squirrel file. Its 15 interlinked pockets provide ample space for foolscap-size papers. Each has a flat metal top into which an index strip can be inserted.

The file is attractive to look at. Its neat metal box has a hinged flap in front for easy access to the contents.



Fifteen indexed pockets

and a carrying handle which lies flat when not in use. External dimensions are 6½in. deep by 11in. high by 16in. wide.

Roneo Ltd., 17 Southampton Row, London W.C.1

Low-cost Wallchart

NIQUE feature of K.S. planning boards is that copies can be made of the information shown on them at and has 20 horizontal and 36 vertical



Quickly and easily copied

any time, without using a camera. The charts are built up from a number of thin plastic panels; these slide into a board which, in turn, is placed into wall-mounted framework or into swinging panels.

The chart is set up by putting headings on small plastic strips. These may be written by hand or typed on adhesive strips. These are pegged into the boards, and other information is set up by pushing in small plastic pegs. The pegs protrude a little way beyond the back of the board, and it is this feature that permits copies to be made.

To take a copy, the required panel is removed from its frame. A duplicated or typed form, with headings and subdivisions similar to those on the chart is placed over a small board whose holes correspond to those on the chart. The chart is then placed over the paper. Slight pressure is applied by hand or with a roller, and the pegs are forced through the paper, leaving small holes. In this way an accurate copy of the chart can be made whenever required and in a few moments.

Each panel measures 12in, by 8in.,

^{*}Equipment included in this survey is selected for its news value alone. Manufacturers are invited to submit details of new and interesting products for consideration. An original photograph should accompany each item submitted.

rows of holes. The basic chart consists of six panels, wallboard, and mounting frame. It is suitable for progress control, stock records, or any other activity which is normally recorded on wallcharts. The price is modest.

KS Planning Boards, 25 Haymarket, London S.W.1

Punched Card File

PUNCHED cards containing names and addresses can now be filed on the visible index system. This development should considerably speed and ease the job of pulling and refiling. The cards are displayed on trays, leaving three lines of type-



Visible address cards

written material visible at the top for index purposes.

Eight-drawer cabinets hold 800 forty-column cards—half as many of the 65- or 80-column sizes. The cabinets may be placed side by side or stacked upward, as required. Alternatively, trays may be bought separately. These can be hung vertically on a wall or mounted on swinging panels.

Powers-Samas Accounting Machines (Sales) Ltd., Powers-Samas House, Holborn Bars, London E.C.1

New Portable Typewriter

HOUSED in a smart P.V.C. zipper case, lined with tartan, the Oliver Courier is available in a range of eight colours. It weighs just under 12lb., yet has many of the features of a standard model, including 88-character keyboard, a paragraph setting device, two-colour ribbon and a



Reinforced against shock

stencil switch. There are eight typefaces to choose from.

For protection in transit the machine has a reinforced back fender.

Oliver Typewriter Manufacturing Co. Ltd., 289 High Holborn, London W.C.1

Office Seating

PEOPLE whose work requires them to turn constantly on their chairs will benefit from the design of Nu-Parq seating. The chairs have been made to 'give' horizontally so that the seat follows the user's body movements as he turns to left or right, thereby reducing muscular fatigue. This is accomplished by incorporating two sets of rubber bearings into the chair—one set at the intersection of the frame and legs, the second enclosed in the seat frame and assembly.

The chair shown here is intended for office use; there is also a higher



Reduces fatigue

backless model designed for factories. In both models the frame is node of steel tubing, the base frame of cast aluminium. A wide range of upholstery materials, including fabrics and plastics, is available.

Edgleys Ltd., 151 Fleet Street, London E.C.4

Index Printer

NAMES, addresses and other information can be printed direct from metal plates attached to record cards, by using the *Adrema Cavendish* index printer. This method has the advantage that no separate files of plates are needed when invoices, statements, labels, and other documents are to be addressed to customers.

The machine works from plates containing up to nine lines of em-



Uses card-mounted plates

bossing. It takes cards from 3in. to 13in. deep and of most widths in common use. An extra feature which can be fitted if required provides three data channels above the plate. Blocks, movable type or stereos can be inserted into these to provide changing information such as date or depot number.

A carbon roll moves automatically each time an impression is made, thereby ensuring even wear. One depression of the handle is sufficient to make an impression, and several carbons can be taken if desired. The action is quiet.

Adrema Ltd., 2-10 Telford Way, London W.3

Book-binding Kit

PERMANENTLY bound books can quickly be made in the office by unskilled labour using the *Planax* kit. Papers need not be punched, and the finished book can be opened

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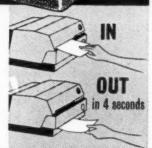
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ALL ELECTRIC Plug the 'Secretary' into the mains and it is ready to serve you the moment you switch on. What could be easier? Wherever there is mains supply the 'Secretary' will work for you to make just the copies you require. You operate the 'Secretary' as quickly as you switch on a light.

SIMPLE There is nothing complicated to learn. Anyone can, without preliminary skill or training, produce perfect copies.

COPIES Incoming mail, important letters, complicated tables and charts, maps, drawings, press cuttings, magazine and newspaper illustrations . . . photographs, records, reports-all these the 'Secretary' copies in 4 seconds. You can have as many 4-second copies as you want from the same original or from any number of different originals. Merely "feed" the machine with your selected original-the 'Secretary' does the rest.

CONFIDENTIAL Because the 'Secretary' is so simple to use you can make your own copies of confidential documents in your own time without any material leaving your care. The 'Secretary' leaves behind no tell-tale masters carbons or imprints; the original and the copy are its only existing records and with those in your possession every secret is safe.



Binds office papers

out perfectly flat. This method saves filing space because small papers can be distributed evenly throughout the volume instead of being bunched in the centre.

The outfit consists of an electric jogger; combined edge-gripper and pasting table; special adhesive; and (as an optional item) an infra-red drier. Other accessories required are bookbinder's gauze and stout cardboard for covers, and a brush for applying adhesive.

Papers are aligned in the jogger, which has two slots for small papers and a table for the larger ones. The operator then arranges the papers in

groups so that thickness is evenly distributed. Next the papers are placed between cardboard on the pasting table and clamped into the gripper edge; the table is then turned through 90 degrees so that the inside edges face upward, ready for pasting.

After a preliminary coating of adhesive, gauze is laid over the spine, and a second coating of glue applied. They are left in the gripper to dry—half an hour for natural drying, a few minutes under the infra-red drier. This completes the binding process, though the book should remain unopened for about 24 hours to ensure that the adhesive is thoroughly effective.

Adhesive is supplied in several colours so that filed books may easily be classified by spine colour.

Business Efficiency Machines Ltd., 16 Douglas Street, London W.1

Cleaner Duplicating

No hectographic carbon or ribbon is used in typing master documents for the *Model 226 Azographic*

electric spirit duplicator. The machine employs a process in which no colour is produced until the duplicator fluid comes into contact with the master copy. The typist therefore keeps her hands clean.

Its cleanliness and high operating speed make the machine specially attractive for short-run work. Maximum output speed is 100 copies per minute, and up to 100 copies can be taken off one master. The feed mechanism is designed to ensure that paper or card go with equal ease through the machine, even if they are slightly irregular in shape. Feeding may be done automatically or by hand.

Paper or card ranging in size from 3in. by 4in. to 11½in. by 14in. may



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be used, and the machine is easily adjusted to accommodate different sizes and weights. Duplicating on pre-printed forms can be done with a minimum of trouble by using a calibrated knob to adjust registration.

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A. B. Dick Co. (of Gt. Britain) Ltd., 140 Theobalds Road, London W.C.I

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THE new Remington fire-resistant desk is available with one or two pedestals, and in a choice of two



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colour schemes. Each model has drawers deep enough to accommodate foolscap files with tabbed dividers.

Prototypes of the desk have been put through rigorous tests to ensure their effectiveness. A certificate describing these, and stating the desk's continued immunity as it ages, is attached to each one.

Colour schemes are grey with black lino top, or olive green with darker green top. Handles and top trim are of chrome.

Remington Rand Ltd., Commonwealth House, 1-19 New Oxford Street, London W.C.1

Adding-Listing Machine

THE new Clary adding-listing machine works in sterling and is available for hand or electric operation. It has a rotary mechanism which, the manufacturers say, provides smooth, fast operation.

Among the novel features of the electric model (illustrated here) is an extra adding-bar, operated by the

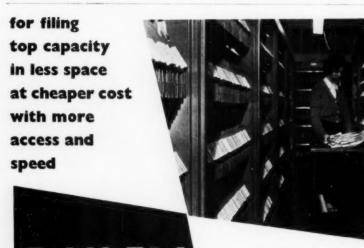


Smooth, fast operation

thumb and designed to ease and speed up work. There is also an automatic warning which operates when a credit balance comes up: a red lamp flashes, and credit totals are printed in red, as are all subtracted figures. Other automatic functions include spacing of totals, printing of ciphers, and punctuation.

The machine has a totalling capacity one penny short of £1 million. It is housed in a green and grey case. Weight is 23lb.

Office Machinery Ltd., Omal House, Kingly Street, London W.1



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One-second welds

cations quick and easy. They are suitable for joining sheet metal up to 14 s.w.g. Weight distribution is even, making for ease of handling.

Four sets of welding arms increase their adaptability, and give up to 13in. reach over obstacles. Welding time is automatically controlled. To make a weld, the operator has only to select the arms required, press the pressure lever, and flip the welding switch: in less than a second there is a perfect spot weld.

No contactor or timer are required. In practice the rate of welding is limited only by the operator's speed in moving from one part to

The two lightweight units are intended for repair shops and subassembly tack-welding; the heavier models are for continuous assembly of sheet metal fabrications such as metal furniture, car bodies and air

Welding current of the smallest model is 5,000 amps at 2½ volts, with 500lb. forging pressure.

Portable Welders Ltd., 225 Westminster Bridge Road, London S.E.I.

Insulated Rooms

KITS of parts are available for assembling large insulated enclo-

sures, suitable for any industry where components or materials have to be kept at a stable temperature although the ambient temperature may fluctuate considerably.

The kits consist of panels, pressed channel rails, doors and grills. They can be any length, with a width of 7ft., 10ft., or 14ft. and a height of 7ft., or 10ft. 6ins. If desired, an insulated floor section is also provided. No supporting frame is needed.

Given a level surface, unskilled labour can assemble an insulated enclosure within a few hours, due to the large amount of pre-fabrication. The standard panel unit is 7ft. by 3ft. 6in. by 2in. thick. Heat-resisting insulating material is packed between the double walls.

The enclosures are equally efficient



Quickly assembled

for high or low temperatures. Special sizes are available on request. Finish is hammered silver grey gloss enamel.

Tomlinsons (Rochdale) Ltd., Oldham Road, Rochdale.

Electronic Positioning

THE application of electronic control to machine tools is frequently disappointing because the inherent inaccuracies of the machine's operations nullify the electronic accuracy.

This problem is solved in a coordinate drilling machine incorporating the E.M.I. method of machine

tool control. The table slideway uses recirculating ball bushings mounted in carriages running on hardened and ground bars. Backlash in the reduction gearing between the servo motor and lead screw is eliminated by using composite gears of nylon and bronze, the nylon 'sandwich' being slightly larger than the bronze layers. As a result the servo mechanisms drive the tables in either direction, quietly



Automatically controlled

and accurately, at about 60in. per minute, irrespective of table loads. Cooling for each servo is ducted from a central blower.

The Farrand Inductosyn, heart of the electronic system, is mounted near the ball bushings. So are the magnetic clamps which lock the tables immediately the desired position is reached. The whole assembly is completely enclosed.

Drill speed and feed of the automatic drilling head are infinitely variable. Accuracy of the equipment is such that four test plates, made separately, with six holes arranged in a 4in. diameter circle round a central hole, were completely interchangeable.

Other types of drilling machine, up to 40ft, long, with rotary tables, using the E.M.I. system, are available.

Industrial Technics Ltd., Empress Road, Southampton.

Folding Manometer

Manometers — frequently used for testing gas pressures, air fuel ratios, fans and blowers-are awkward to transport and, as a rule, easily broken. But these disadvantages are overcome by the Rediweld Manometer, which is made of transparent welded plastic.

The instrument is supplied dry. To prepare it for use, the special fluid



For testing pressures

provided is poured into the top of the tube and the scale adjusted. When the source of pressure is connected, one 'leg' of liquid moves up, the other down. Pressure is calculated by adding the two movements, using the conversion chart supplied if necessary. There is no parallax error.

When the measurements are complete, stoppers are fixed on the tops of the tubes, the instrument rolled up, and replaced in its carrying case.

Rediweld Ltd., 17-27 Kelvin Way, Crawley, Sussex.

Robust Valves

OUTSTANDING features of a new range of valves, designed to handle liquids, are: (1) unauthorized interference with the setting is very difficult; (2) spring and valve disc are easily dismantled for checking and replacement; and (3) the disc itself is



Stable in operation

checked for freedom of movement simply by unscrewing a cap.

feature (a skirt to the clack) which makes them more positive and stable in operation. As soon as the valve begins to open, the skirt presents a greater area to take the pressure, thus providing an increasing force to overcome the increasing resistance of the spring as the valve lifts. There are, therefore, smaller differentials between the opening pressure, pressure at which full capacity is delivered, and re-seating pressure.

Sizes and settings are: lin., 65 p.s.i.; 1½in., 65 p.s.i.; 2in., 35, 65, 110, and 150 p.s.i.; 3in., 65, 110, and 150 p.s.i.

Megator Pumps and Compressors Ltd., 43 Berkeley Sq., London W.1.

Strapping Tape

WATERPROOF vinyl, on which is fused reinforced rayon threads, is the reason for the great strength of



Strong yet flexible

Strapseal tape. It can be used for strapping and binding very heavy items.

Breaking strain is 180lb. although the tape is flexible enough to follow the contours of an uneven surface. The vinyl provides protection against

Applications include: Banding metal bars, pipes, conduit, sheets; attaching accessories to main units during transit; reinforcing the edges and flaps of cartons to prevent pilfering; banding and reinforcement wherever metal strapping would damage the package.

Industrial Tapes Ltd., Speedfix House, 142-146 Old Street, London E.C.4.

Accurate Water Meter

CCURACY within 2 per cent, and overflow rates varying in the The valves also have a special ratio of 500:1, are claimed for the

Compound range of water meters.

To achieve the wide range, two separate measuring units are incorporated in one casing. An automatic change-over valve selects the unit



Two meters in one

required. There are units to fit 3in. and 4in. pipe sizes.

Outstanding features are: (1) absence of external piping, simplifying installation and maintenance; (2) all parts easily removed for servicing without breaking any pipe flange joints; (3) large reduction in size and weight over similar meters.

The casing is made of high grade cast iron treated with a Bitumastic solution for protection against cor-

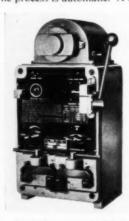
George Kent and Co., Luton, Beds.

Band Saw Welder

DISADVANTAGE of some bandsaw joints-thick overlaps, slow soldering-are overcome by a flashwelding unit which butt-welds in four to five minutes, about a quarter of the time normally required.

The welding unit can be used for making up saw bands from coil stocks, or joining a band after threading through a starting hole.

The process is automatic. A shear



For quick, accurate joints

BUSINE

M. S. WHITESIDE & CO. LTD., MAKERS OF SUN-PAT PRODUCTS, USE

icters two ncormatic

unit

3in.

all (icing ange and rade Istic cor-

ndlow our of for oil idаг

Hi-Dri Paper Towels for Complete Hygiene



THE MAKERS OF SUN-PAT products realise that as food manufacturers they have to maintain a very high standard of hygiene. Their Chief Chemist says, 'Our duty to the public calls for the greatest concentration on hygiene: by using Hi-Dri Paper Towels a high standard of personal cleanliness is maintained by our employees'. The Hi-Dri drying service means a clean towel and a thorough dry for each person; the used towel is then disposed of germs and all! In this way infection cannot be passed on either between employees or to the public. What's more, as SUN-PAT have proved for themselves, Hi-Dri Towels save money!

THE COMPLETE DRYING SERVICE

Phone or write for a professional demonstration, TATe Gallery 4051 (5 lines) Industrial Division - Kimberly-Clark Ltd., 11 Grosvenor Gardens, London, S.W.1. ANOTHER FINE BRITISH PRODUCT FROM KIMBERLY-CLARK -- MADE IN ENGLAND DECEMBER, 1957

HI-DRI OFFERS YOUR BUSINESS ALL THESE ADVANTAGES

- Hi-Dri is the most economical and efficient way of providing a clean, dry towel every time!
- Hi-Dri towels are quality towels -- so they stay firm even when wet. No queueing in the washroom.
- Hi-Dri Dispenser Cabinets supplied and installed free, on loan.
- Hi-Dri is not just a paper towel, it's a complete drying service.



129

produces square ends on the blade; welding power is switched on; the timer switches it off automatically. Then the weld is annealed, using the built-in fitment, and cleaned-up by means of the cropper and grinder which are also included. Unskilled operators can produce first-class work.

Three models are available with capacities, respectively, of §in., 1\frac{1}{2}in. and 2in.

Startrite Sales Ltd., Waterside Works, Gad's Hill, Gillingham, Kent.

Translucent Buildings

TRANSLUCENT corrugated panels, giving diffused natural lighting, are now available. Entire roofs or walls can be constructed of them, or they can be inserted here and there in place of normal cladding.

The panels are available in a wide range of colours, with a light transmission factor of 95 per cent. Widths and depths of the corrugations are standard, so they can be used in conjunction with other corrugated

produces square ends on the blade; roofing and cladding materials. welding power is switched on; the timer switches it off automatically. Then the weld is annealed, using the handling.

The sheets are clear polyester resin reinforced with glass fibre mat. They are ½in. thick and weigh about 80z. per square foot; are easily carried, cut, or drilled. Once erected, they need no maintenance. Resistance to breakage is high. Colour matching is easy, facilitating their use for decorative purposes.

U.A.M. Plastics Ltd., Tolpits, Watford, Herts.

Moisture Meter

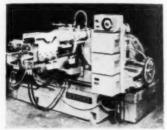
NORMAL methods of testing moisture content are applied, as a rule, only to specific samples. A new instrument tests most of the contents of a sack or other container.

There are two parts: a probe and a recording instrument. The probe has nine spears, each about 8in. long. For testing, say, a sack of grain, the probes are thrust into the grain through the texture of the sack. A cable connects the probe to a meter

with a handle attached. Turning the handle generates about 500v, which is used to measure the resistance of the grain between the various probes. Scotmec Works, Ayr, Scotland.

Centreless Grinder

UP to 400 pieces per hour can be treated by a new centreless grinder designed specially for rotor shaft



Automatic shaft grinding

assemblies of fractional h.p. electric motors like vacuum cleaners, gramophone motors, and windscreen wipers.

The grinder, which will take rotors up to 10in. long, is designed for possible incorporation into a transfer line.

Arthur Scrivener Ltd., Tyburn Road, Birmingham.



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DECEMBER, 1957

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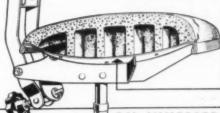
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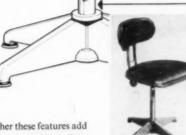
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CANTEEN

Sandwich Dispenser

SANDWICHES, rolls and buns are automatically and hygienically dis-



Attracts customers

pensed by a new coin-operated, table-top dispenser, which requires no power supply.

The dispenser attracts customers and gives a clear view of the goods through the transparent cover. The customer makes his choice by revolving the cover, and inserting either 6d. or 1s. (according to the coin mechanism supplied).

There are 40 compartments. Dimensions are 24in, high by 24in, diameter.

H. Griffiths (Caterers) Ltd., 41 Sloane Street, London S.W.1.

'Spiked' Carver

THE spiked centre stand on the Kithurst carving dish can save time and patience in busy staff dining-rooms. Joints cannot slide on it and are always under control. When a single screw is removed, the



Joints are held fast

centre stand can be detached, so that the dish becomes a tray for hors d'oeuvres or salads. The four recessed dishes can serve a complete meal and help to save washing up.

The tray measures 27in. by 14in. and is of polished stainless steel. The heat-resisting handles are available in black or ivory.

Kithurst Products Ltd., Commerce House, South Street, Lancing, Sussex

Cold Drink Vender

ICE-COLD milk or soft drinks are provided by the *Coolamatic* vending machine, which also gives change for 6d. or 1s. All it requires is electric power from a normal socket.

Tetra Pak, an ingenious throwaway carton developed in Sweden, is used. There is room for 144 cartons. Refrigeration is automatic, and the drinks are delivered hygienically.

Loading 144 cartons and 144 pennies in the change-giver takes about 15 minutes. An "empty" warning glows when the last carton is delivered. Total weight, loaded, is about 6cwt.

Farrow and Jackson Ltd., 41/2 Prescot Street, London E.I.



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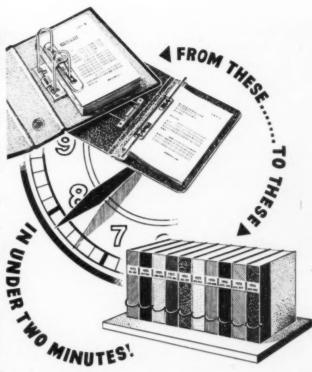
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HEALTH BANK BOOSTS MORALE, **CHECKS ABSENTEEISM**

Starts on page 103

he wishes, make no claim for an absence of two or three days and thus keep in full his entitlement to three-quarter pay against the possibility of a more serious need in the future. Sir Frederick has told employees: "The scheme is meant to be used just as you build up a balance at the Post Office and draw upon it in time of need."

The scheme, which applies to all employees from junior executives downwards, has found ready acceptance among the workers. Before being put to them, it was approved by officials of the Transport and General Workers' Union. That procedure was in line with the general practice of the firm. "We work freely with the union on such matters, whether or not it is strictly their affair," says A. H. Button, Schweppes' personnel manager. "We asked

Length of Service in the Company	Credit at ½ rate (in the current year)	Credit at ½ rate (in the current year)
Under 5 years	Nil	2 weeks in first year of Scheme (i.e. in 1950). 1 week in second year of Scheme (i.e. 1951)
5 years and under 9 years	2 weeks in first year of Scheme (i.e. in 1950). 1 week in second year of Scheme (i.e. in 1951)	2 weeks in first year of Scheme (i.e. in 1950), I week in second year of Scheme (i.e. in 1951)
9 years and over	4 weeks in first year of Scheme (i.e. in 1950). 2 weeks in second year of Scheme (i.e. in 1951) Nil	4 weeks in first year of Scheme (i.e. in 1950). 3 weeks in second year of Scheme (i.e. in 1951). 2 weeks in third year of Scheme (i.e. in 1952). 1 week in fourth year of Scheme (i.e. in 1953).

TABLE 2

This scale of credits was designed to carry the scheme through its early years. while individual balances were building up. Schweppes wanted the benefits to be felt immediately

them to look at our draft schemes before we published them."

Only one feature of the scheme aroused opposition—the inclusion of unmarried mothers in its benefits. But on that Sir Frederic was adamant: "I told them we had no right

to set ourselves up as a court of morals. Unmarried mothers are employees of ours on the same terms as anybody else. If they have to be away for that reason, that's all there is to it."

One result of the scheme has been

This towel never gets wet New steam-heated HAND & FACE DRYER

OUTSTANDING ADVANTAGES:

- High speed hygienic drying Prevents spread of skin for hands, face, arms and hair.
- Deals with 8 to 10 persons per minute.
 - Slashes towel costs.
- infection.
- Operates from factory's own steam supply.
- A self-contained unit easy to install.
- Robustly constructed for long trouble-free service.





The Spiral Tube Air Towel has been awarded the Certificate of the Royal Institute of Public Health and Hygiene for Hyginic Merit

Patent Application No. 30090/56

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BUSIN SS

a considerable reduction in labour turnover—which had been a serious problem.

It has cut absenteeism as well. Sir Frederic gives a telling example. At one of their factories most of the workers used to stay at home on the day after a Bank holiday. In the year in which the scheme started, the manager arranged work after a holiday according to the usual expectations: although normally a four-line plant, the factory prepared vats for only two lines.

But this time it was different. Sir Frederic explains: "I put the Health Bank scheme to them in February and told them they could make it or break it, according to how they behaved. They got together and decided they were on to something good. And on the day following the Easter Bank holiday there was not a single absentee.

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"We had no work for most of them till noon—till all the vats were filled."

Abuse of the scheme by malingering? "I have been amazed at the extent to which it has not been abused," says Sir Frederic. "We have only had to warn a few people out of a labour force which is now over 2,500."

The cost of the scheme may ultimately rise to 2 per cent of the firm's wage bill, when employee's rights are fully accrued. During the first year, it was 0.74 per cent of the wage bill. It has slowly gone up since, and in 1956 was 1.09 per cent.

This compares with the cost of other welfare services as follows: Canteen, 1 per cent of wages and salaries; profit sharing, 9 per cent; and pensions 6 per cent.

The scheme has had one startling, unforeseen result: It has led to factory managers being deprived of the right to sack any of their men.

Sir Frederic asked himself one day:
"What's the use of schemes that try
to give these people security and
gnity when any manager, without
king anyone, can send for a man
and dismiss him with a week's
gages?"

"So we decided," he says, "that in future dismissal would be done only A flying start ...

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by me. The only right a factory manager retains is that of suspension, pending a decision by me." A manager has not even the right to summarily dismiss an employee for stealing.

About half a dozen cases a year come to Sir Frederic for a 'keep or fire' decision. Of these, on average, five are dismissed and one is kept on.

How did the managers feel about this drastic change? "At first they were very worried about it," says Sir Frederic. "But now they see the good effect it has had on the morale and dependability of their labour force." It tends to make managers certain of their facts before they put someone up for dismissal. It also makes for a more careful choosing of personnel.

Are Your Costs and Prices Realistic?

Does your thinking take account of changing values? So many things have gone up in price-labour, machinery, supplies, professional services and finished goods. This table, based on the retail price index, gives you a rough set of conversion factors for bringing your values up-to-date. For example, if you spent £100 on a machine in 1931, for which year the conversion factor is 2 77, then you could hardly be surprised if a similar machine now costs £277. It may actually cost more or less, but you would expect values generally to be around 2-8 times the 1931 level. This table will be brought up-to-date every quarter, but published monthly for handy reference.

	Con-		Con-
	version		version
Year	Factor	Year	Factor
1913	4-15	1934	3 - 32
1919 -	1 91	1935	2 88
1920 =	1 - 67	1936	2 83
1921	1 85	1937	2 68
1922	2 27	1938	2 65
1923	2 - 37	1946	1 -73
1924 =	2 . 37	1947	= 1 -63
1925 =	2 . 37	1948	1 - 52
1926	2 42	1949	1 - 48
1927	2 48	1950	1-44
1928	2 - 50	1951	1 - 28
1929	2 - 53	1952	1 -20
1930	2 63	1953	= 1-16
	2 83		- 1-14
	2 89	1955	
	3 23	1956	- 1.04

FIRE . . . Could it Destroy your Premises ?

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Starts on page 80

volved they are particularly useful, as they do not cause damage. However, they have poor cooling qualities, and where fire has previously taken a good hold it may re-ignite unless very large quantities of gas or powder are available.

Carbon tetrachloride and chlorobromomethane are useful against electrical fires as they do not conduct electricity. They give off poisonous fumes and should be used only by trained personnel.

For cooling solid burning materials, water has no equal. Its disadvantages are that it is dangerous to use on live electrical equipment and that it sometimes causes damage comparable to the havoc of the fire itself

Good housekeeping

Dirt and untidiness are among the commonest reasons for the rapid growth of fire. Accumulations of dust and fluff on ledges, ignited by the careless use of a blowlamp, caused the Keighley mill outbreak of a few years ago, in which eight women died. Such deposits should be removed regularly by a flameproof suction cleaner, using a long hose.

Badly stored goods prevent firefighters getting to the seat of a fire. They are also liable to damage sprinkler heads, or restrict their operation. Goods placed too near a fire-resisting door prevent its speedy closure. Wide gangways in the store may themselves check the spread of fire. So may alternate stacks of combustible and non-combustible materials.

Neglected machinery overheats, produces sparks, or itself catches fire. Bearings should be regularly greased, and shafts checked for alignment. Over-greasing means that oil and grease are thrown about, drip on to benches and become a fire hazard. Slipping belts catch fire and may be thrown about, setting fire to anything in their path.

thrown about, setting thing in their path. DECEMBER, 1957



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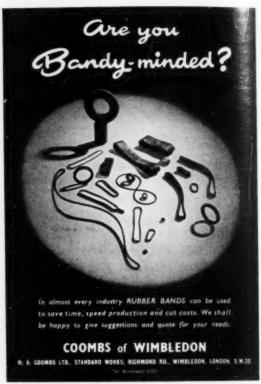
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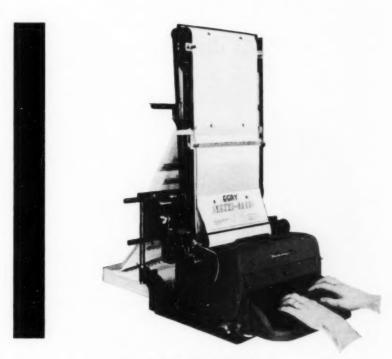
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